ORDER NO. ITD0110012C3

Service Manual

Projection Television

TX-43P250 / TX-51P250 / TC-43P250 / TC-51P250

EURO-7VPChassis

SPECIFICATIONS

Specifications

Power Source:
TX-43/51P250, TC-51P250H: AC 220V-240V, 50/60Hz
TX-43/51P250X: AC 110V-240V, 50/60Hz

Power Consumption:
TX-43/51P250, TC-51P250H: 228W
TX-43/51P250X: 238W
3.0W (Stand-by condition)

Aerial Impedance:
75 Ω unbalanced, Coaxial type

Tuning System:
21 Systems
Frequency Synthesizer
Auto Search
100(Position)/125(Direct)

Receiving Channels:

VHF Band	2-12	(PAL/ SECAM - B, K1)
	0-12	(PAL-B AUST.)
	1-9	(PAL-B N.Z.)
	1-12	(PAL/SECAM-D)
	1-12	(NTSC-M JAPAN)
	2-13	(NTSC-M U.S.A.)
UHF Band	21-69	(PAL-G, H, I)
	21-69	(SECAM-G, K, K1)
	28-69	(PAL-B AUST.)
	13-57	(PAL-D, K)
	13-62	(NTSC-M Japan)
	14-69	(NTSC-M U.S.A.)
CATV	S1-S20	(OSCAR)
	S21-S41	(HYPER)
	1-125	(U.S.A. CATV)
	5A, 9A	(AUST.)
	Z1-Z37	(CHINA)
	C13-C49	(JAPAN)

Intermediate Frequency:

Video	38.0 MHz
Sound	31.5 MHz (D, K)/32.0 MHz (I)
	32.5 MHz (B, G)/33.5 MHz (M)
Colour	33.57 MHz (PAL)/33.6 MHz (SECAM)
	33.75 MHz (SECAM)/34.42 MHz (NTSC)

Receiving Stereo sound system:
NICAM B/G, NICAM I,
NICAM D, A2 (German)

Screen Size:

	Type 51	Type 43
Diagonal:	296 mm	1092 mm
Height:	780 mm	655 mm
Width:	1037 mm	874 mm

Projection Tube:

Type 51	Type 43
TVVAB10GAV (B-ASSY)	TVVAB10GLV (B-ASSY)
TVVAG10GAV (G-ASSY)	TVVAG10GLV (G-ASSY)

TVVAR10GAV (R-ASSY)	**TVVAR10GLV (R-ASSY)**

90° deflection

High Voltage:

31.5 ± 1.0 kV at zero beam current

Audio Output:

24 W [2-way, 4-speakers; 12 W+12 W] (10% THD)

Video/Audio Terminals:

AV1, 2, 3, 4 IN	**Video**	**1 Vp-p 75 Ω**
	S-Video	**Y: 1.0 Vp-p 75 Ω**
		C: 0.3Vp-p 75 Ω
	Audio	**Approx. 0.4V 47k Ω**
Monitor OUT	**Video**	**1Vp-p 75 Ω**
	Audio	**Approx. 0.4V 1k Ω**

Dimensions:

	Type 51	Type 43
Height:	**1385 mm**	**1260 mm**
Width:	**1095 mm**	**932 mm**
Depth:	**500 mm**	**500 mm**

Mass:

Type 51	Type 43
58 kg	**54 kg**

Accessories Supplied:

Remote Controller x 1
"R6" Battery x 2
75 Ω coaxial aerial plug

Design and Specifications are subject to change without notice.
Mass and dimensions shown are approximate.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. Safety Precautions

1.1. General Guide Lines

1. **It is advisable to insert an isolation transformer in the AC supply before servicing a hot chassis.**
2. **When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits.**

If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

3. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations, are properly installed.
4. When the receiver is not to be used for a long period of time, unplug the power cord from the AC outlet.
5. Potential, as high as 31.5kV , is present when this monitor is in operation. Operation of the Projection Monitor without the rear cover involves the danger of a shock hazard from the power supply. Servicing should not be attempted byanyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the projection tube to the Projection Monitor chassis before handling the tube.
6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.2. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Turn on the Projection Monitor's power switch.
3. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the projection monitor, such as screw heads, connectors, control shafts, etc. When the exposed metallic part has a returnpath to the chassis, the reading should be between 4 MΩ and 20 MΩ . When the exposed metal does not have a return path to the chassis, the reading must be∞.

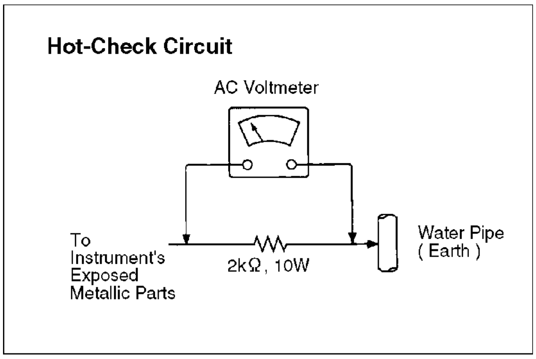
1.3. Leakage Current Hot Check (See Fig.1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 2kΩ , 10W resistor, in series with an exposed metallic

part on the projection monitor and an earth such as a water pipe.

3. Use an AC voltmeter, with high impedance type, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1.0V rms. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the projection monitor should be repaired and rechecked before it is returned to thecustomer.

Fig. 1



1.4. X-Radiation

Warning :

1. The potential sources of X-Radiation in projection monitor are the High Voltage section and the projection tube.
2. When using a projection tube test jig for service, ensure that jig is capable of handling 31.5kV without causing X-Radiation.

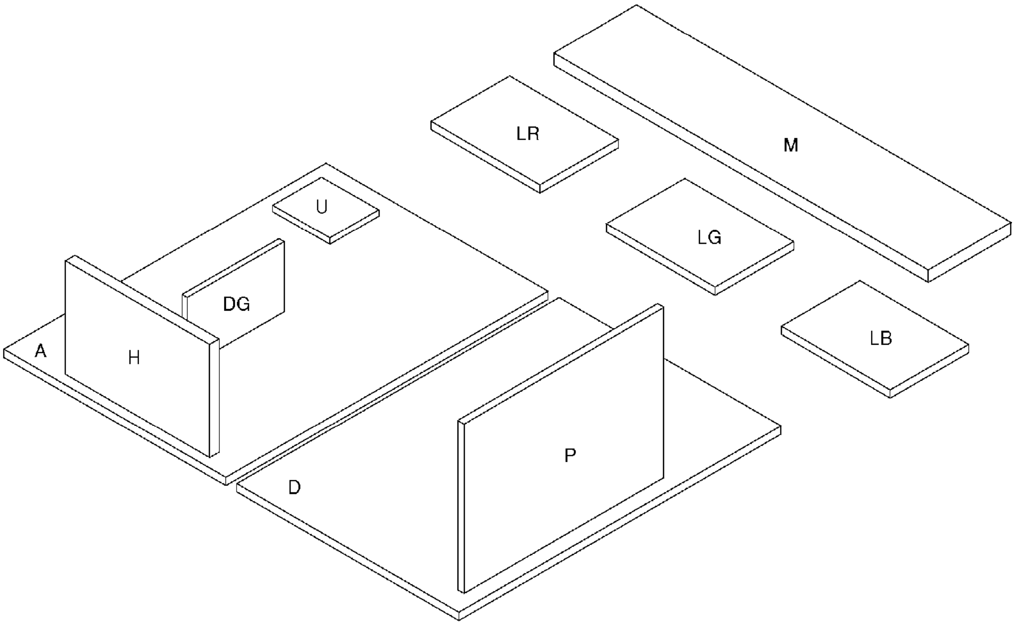
Note:
It is important use an accurate periodically calibrated high voltage meter.

1. Set the brightness to minimum.
2. Set the service switch to the service position.
3. Measure the High Voltage. The meter reading should indicate 31.5

± 1.0 kV . If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.

4. **To prevent an X-Radiation possibility, it is essential to use the specified projection tube.**

2. Chassis Board Layout

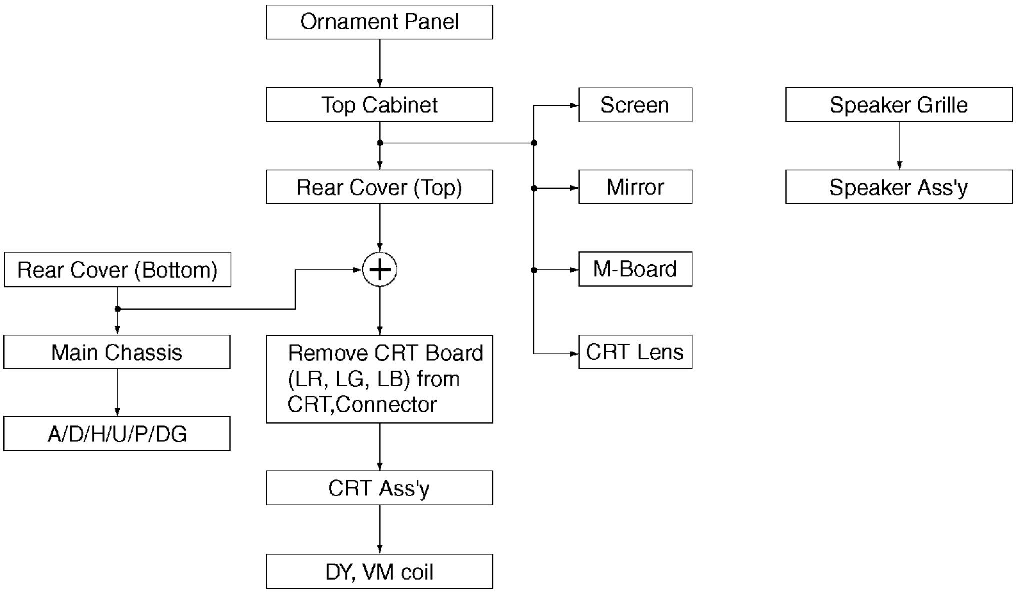


Board-Name	Function
A-Board	Main Signal, Digital Converter
P-Board	Line Filter
D-Board	Deflection, High Voltage
LR-Board	CRT Drive (R)
LG-Board	CRT Drive (G)
LB-Board	CRT Drive (B)
H-Board	Rear terminal
U-Board	MPU
M-Board	Front Terminal, Power Switch
DG-Board	Digital Core

3. Disassembly for Service

This flowchart indicates disassembly items of the cabinet parts and circuit boards in order to find the items necessary for servicing, when reassembling, perform the procedures in the reverse order.

3.1. Disassembly Flowchart

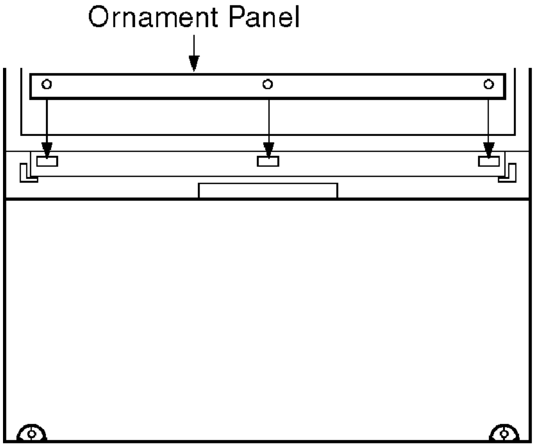

Ornament Panel
Top Cabinet
Screen
Speaker Grille
Rear Cover (Top)
Mirror
Speaker Ass'y
Rear Cover (Bottom)
M-Board
Main Chassis
Remove CRT Board (LR, LG, LB) from CRT,Connector
CRT Lens
A/D/H/U/P/DG
CRT Ass'y
DY, VM coil

Note:

Board ground wires may have to be disconnected to disassemble some boards. All ground wires must be reconnected using jumper leads if necessary before power is applied to Receiver for service.

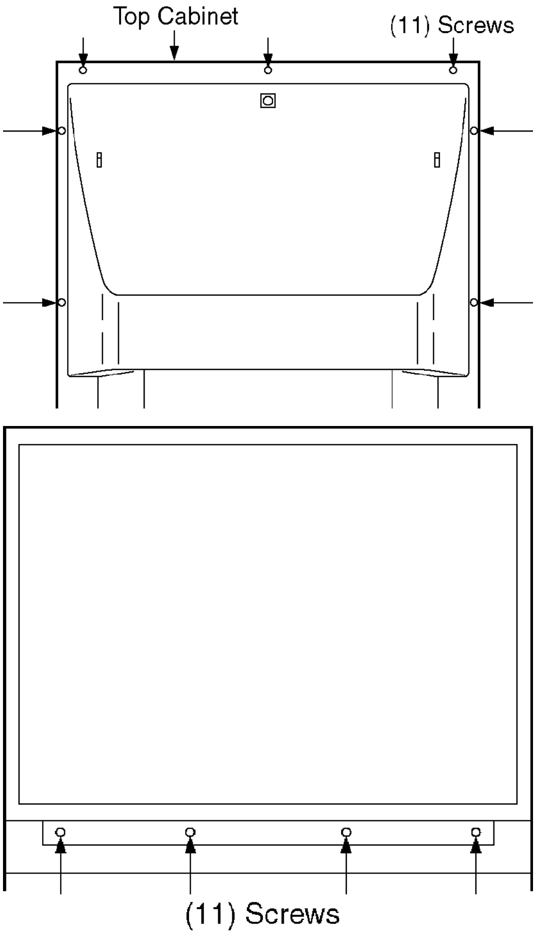
3.2. Ornament Panel

1. The Ornament Panel is secured by (3) striker pins. Grip the Ornament Panel at the side corner pull to remove.


Ornament Panel

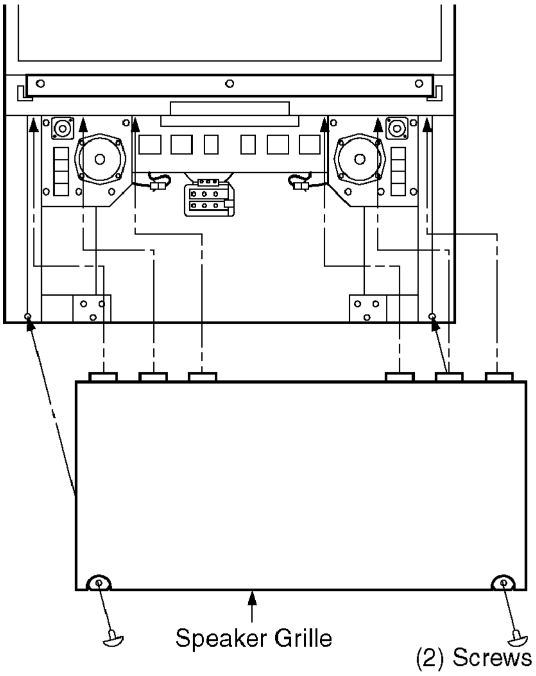
3.3. Cabinet (Top)

1. Remove (11) Screws.


Top Cabinet
(11) Screws
(11) Screws

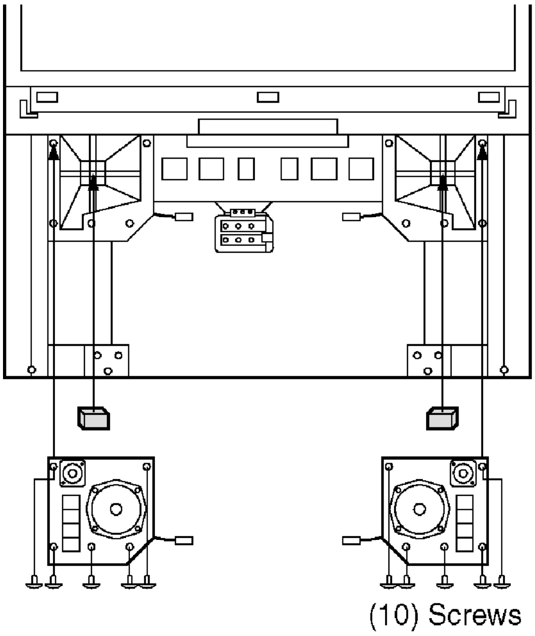
3.4. Speaker Grille

1. Remove (2) screws.


Speaker Grille
(2) Screws

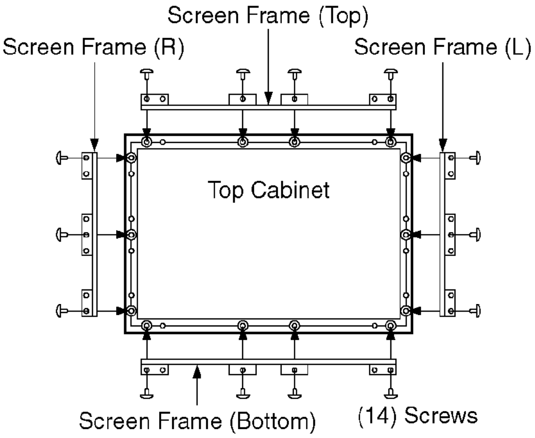
3.5. Speaker Ass'y

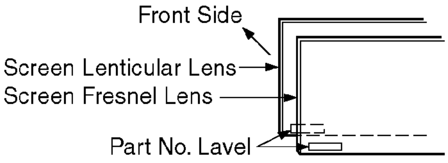
1. Remove (10) screws.



3.6. Screen

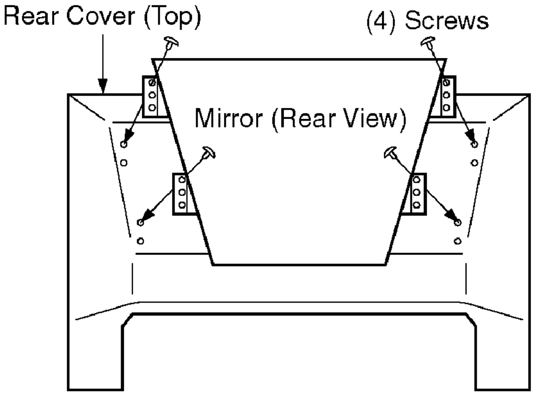
1. Remove (14) screws.


Screen Frame (Top)
Screen Frame (R)
Screen Frame (L)
Top Cabinet
Screen Frame (Bottom)
(14) Screws

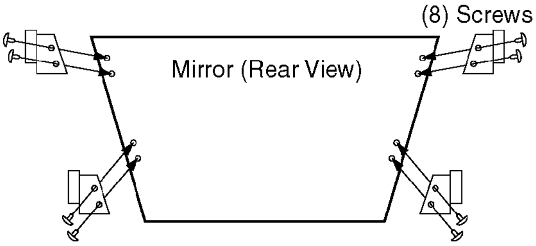

Front Side
Screen Lenticular Lens
Screen Fresnel Lens
Part No. Lavel

3.7. Mirror

1. Remove (4) screws.

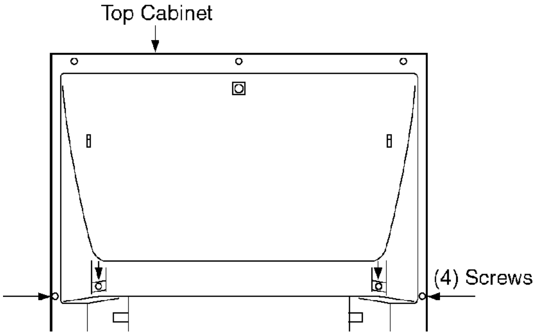

Rear Cover (Top)
(4) Screws
Mirror (Rear View)

2. Remove (8) screws.

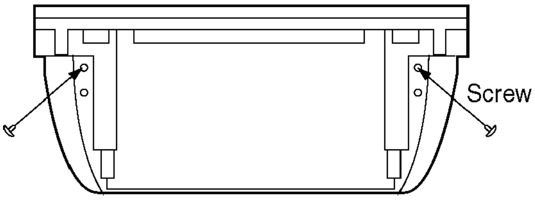

(8) Screws
Mirror (Rear View)

3.8. Rear Cover (Top)

1. Remove (4) screws.


Top Cabinet
(4) Screws

2. Remove (2) screws.



3.9. Rear Cover (Bottom)

1. Remove (18) screws.

2. Remove (1) screws.

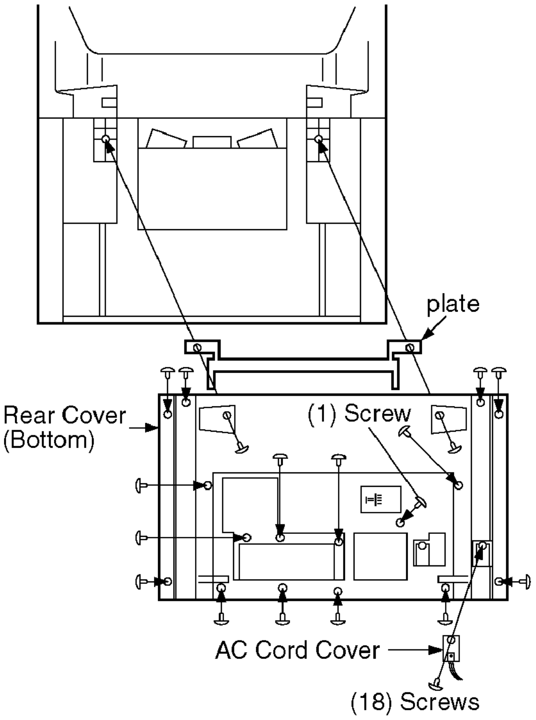
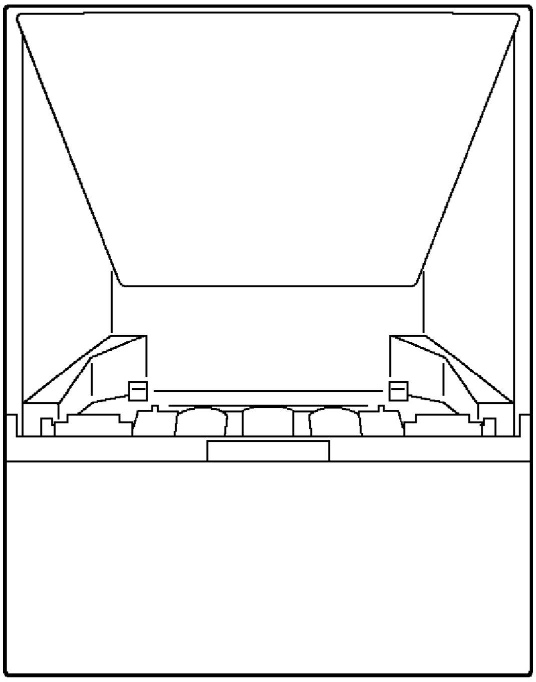


plate
Rear Cover
(Bottom)
(1) Screw
AC Cord Cover
(18) Screws

3.10. Disassembly For CRT Removal

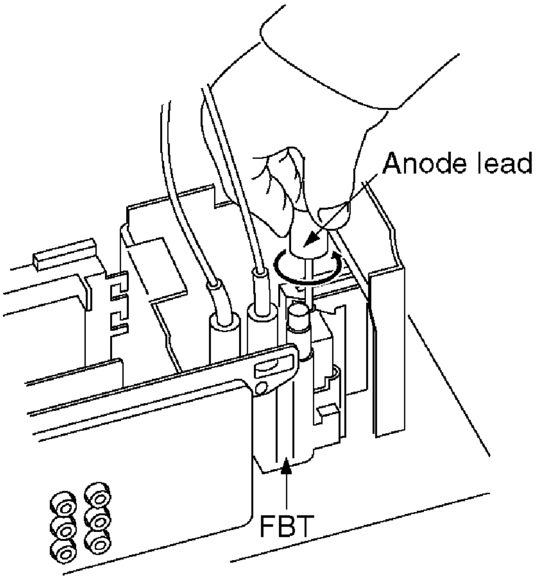
To facilitate CRT replacement, the complete CRT mounting chassis does not need to be removed.

1. **Remove the Screen Frame Ass'y, Decorative Panel and the Bottom Rear Cover Ass'y. (See Disassemble for Service).**

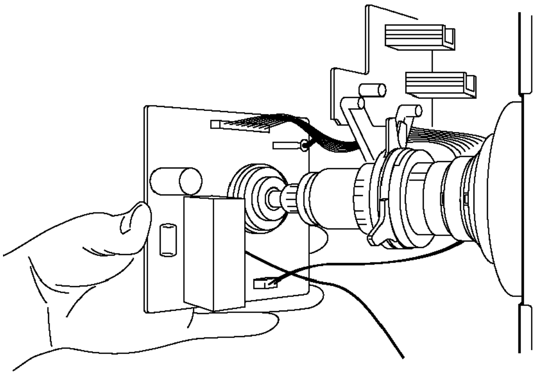


2. **From the Rear side, remove the defective CRT's anode lead from the Flyback Transformer block that is mounted secured to the Main chassis E-Board.**

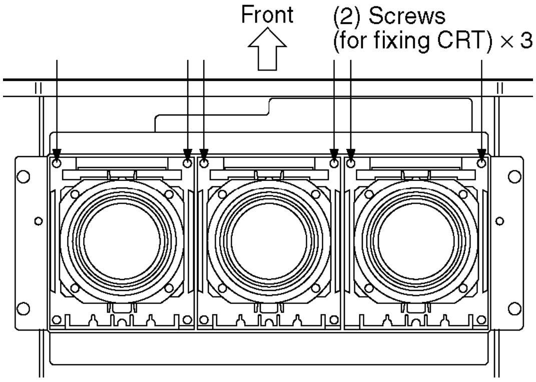
3. Grasp the anode lead protective cap body inside, and rotate 1/4 turn counter clockwise and pull anode lead sleeve out of the distributor.
4. Discharge anode lead to CRT chassis metal frame.



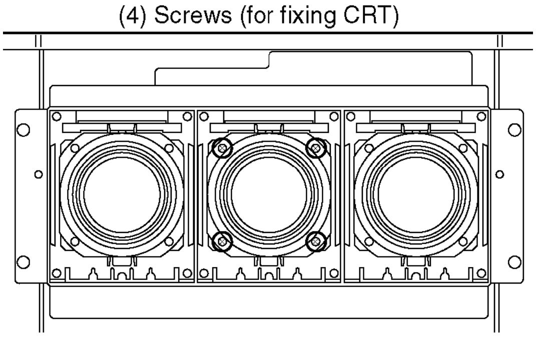
5. Unplug the defective CRT Dag (GND), from the CRT Board, LBGND for LB, LGGND for LG, LRGND for LR.
6. Remove lead wires (DY, VM coil) and anode lead wire from holders as necessary.
7. Remove the CRT Board from the defective CRT neck.



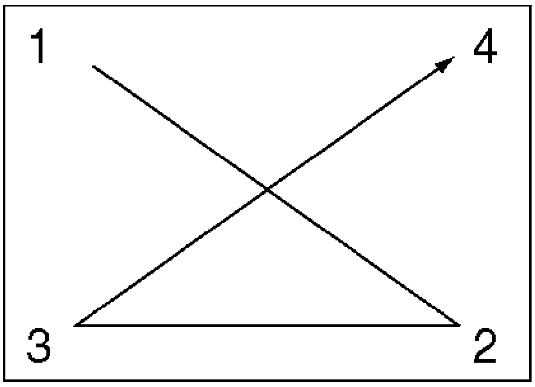
8. Note position of yoke with centering tabs and remove from defective CRT.
9. From the Top, remove (2) screws from the defective CRT.



10. **Release CRT anode lead from CRT chassis wire clamp and all other wires from holders.**
11. **Wire the anode lead wire.**
12. **Lift out CRT assembly with lens assembly and other CRT neck assemblies.**
13. **Lay CRT face down on a soft cloth.**
14. **Remove CRT lens by removing (4) screws.**



15. **Install yoke and VM coil with other CRT neck assemblies on CRT neck in the same order and position as removed from the defective CRT.**
16. **Push yoke against bell of CRT and tighten the clamp just snug enough so it will not easily shift.**
17. **Assemble CRT focus lens assembly to new CRT with (4) screws. Make sure focus lens adjustment nut is in the same location as on other CRT focus lens.**

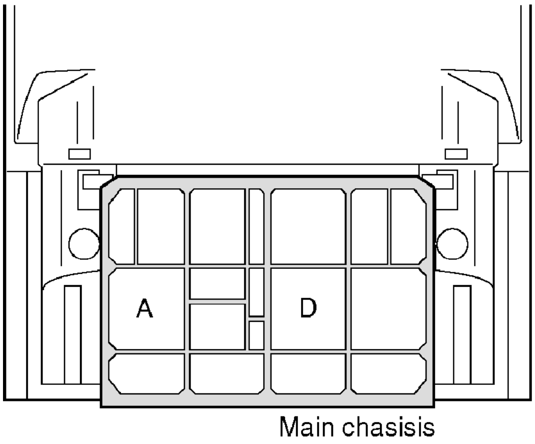


Note:
Please assemble with screws in the order shown in detail and tighten with same torque.

4. Service Hints

4.1. Service position for Main chassis

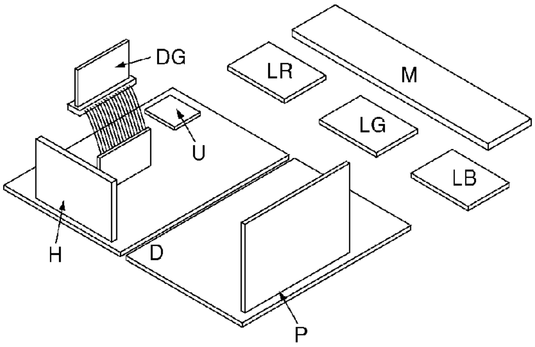
1. **Remove the Rear Cover (Bottom) by removing (19) screws around its perimeter.**
2. **Remove lead wires and bundles from holders as necessary.**
3. **Pull out main chassis and stand it.**



4.2. Service Position for DG-Board

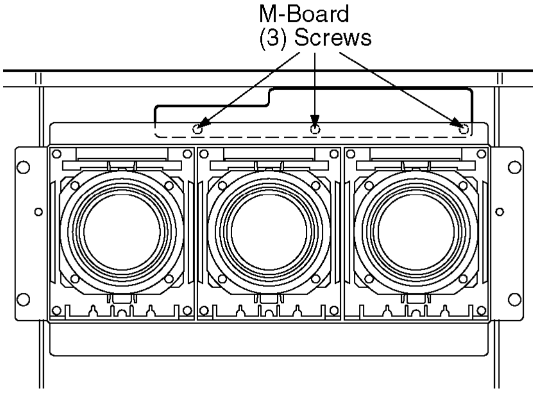
1. **Remove the each circuit board from A or D-Board.**
2. **Connect extension cables between individual circuit board and A or D-Board.**

Note:
Extension cable kit is supplied as service fixtures and tools. (Part No. TZSC0724)



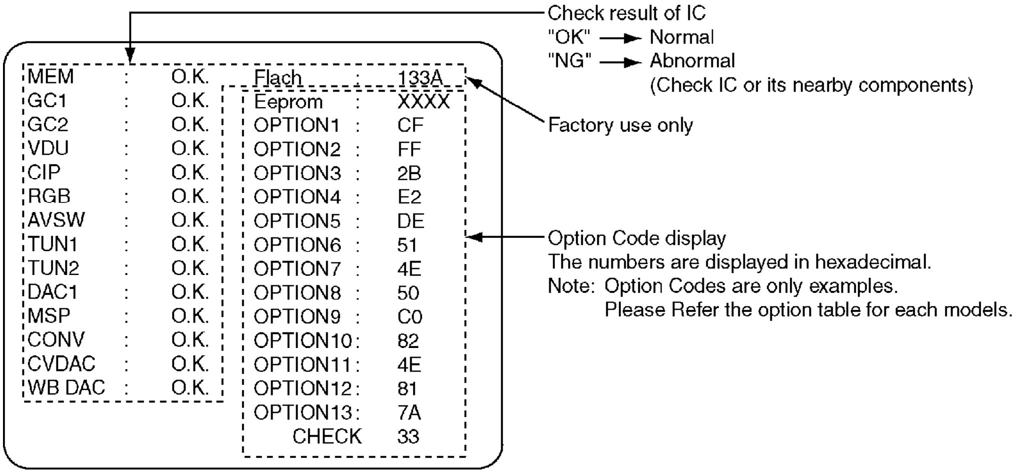
4.3. Service Position for M-Board

1. **Remove the Top Cabinet Ass'y.**
2. **Remove M-Board by removing (3) screws.**



5. Self Check

1. **Self-Check is used to automatically check the bus lines and hexadecimal code of the TV set.**
2. **To get into the Self -Check mode press the down (—/∨) button on the customer controls at the front of the set, at the same time pressing the HELP button on the remote control, and thescreen will show :**



```
MEM     :   O.K.   Flach      :  133A
GC1     :   O.K.   Eeprom     :  XXXX
GC2     :   O.K.   OPTION1    :  CF
VDU     :   O.K.   OPTION2    :  FF
CIP     :   O.K.   OPTION3    :  2B
RGB     :   O.K.   OPTION4    :  E2
AVSW    :   O.K.   OPTION5    :  DE
TUN1    :   O.K.   OPTION6    :  51
TUN2    :   O.K.   OPTION7    :  4E
DAC1    :   O.K.   OPTION8    :  50
MSP     :   O.K.   OPTION9    :  C0
CONV    :   O.K.   OPTION10:     82
CVDAC   :   O.K.   OPTION11:     4E
WB DAC  :   O.K.   OPTION12:     81
                   OPTION13:     7A
                      CHECK      33
```

Check result of IC
"OK" → Normal
"NG" → Abnormal
(Check IC or its nearby components)
Factory use only
Option Code display
The numbers are displayed in hexadecimal.
Note: Option Codes are only examples.
Please Refer the option table for each models.

If the CCU ports have been checked and found to be incorrect or not located then "--" will appear in place of "O.K.".

Display	Ref. No.	Description	P.C.B.
MEM	IC1104	Memory	A-Board
GC1	IC1301	Global core IC Main	DG-Board
GC2	IC1304	Global core IC Sub	DG-Board
VDU	IC1305	Video Processor	DG-Board
CIP	IC1303	CIP	DG-Board
RGB	IC1315	RGB Processor	A-Board
AVSW	IC3001	AV SW	A-Board
TUN1	TNR001	Tuner Main	A-Board
TUN2	TNR002	Tuner Sub	A-Board
DAC1	IC1253	DAC control	A-Board
MSP	IC2001	Stereo Decoder	A-Board
CONV	IC7107	CONVERGENCE	A-Board
CVDAC	IC7121	Conv. DAC	A-Board
WB DAC	IC7702	WB DAC Control	A-Board

6. Service Mode Function

MPU controls the functions switching for each IICs through IIC bus in this chassis. The following setting and adjustment can be adjusted by remote control in Service Mode.

6.1. How to enter SERVICE 1

1. In sound menu, set BASS to MAX, and set TREBLE to MINIMUM.

2. Simultaneously press INDEX button on remote control and VOLUME DOWN button [-] on the TV set.

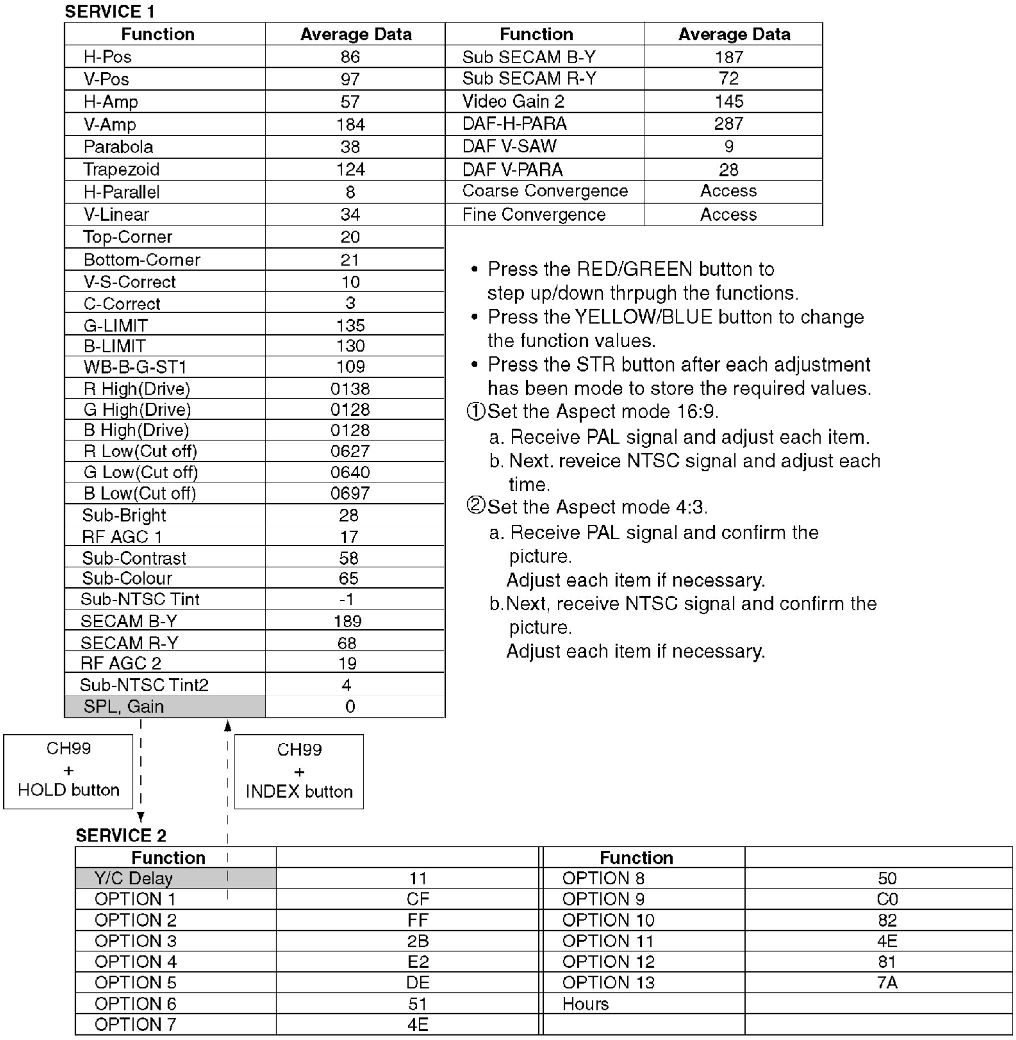
6.2. How to enter SERVICE 2

1. Set the channel to CH99.

2. Press HOLD button on remote control.

Note:

To exit to Service mode, press N or Power button on remote control.



SERVICE 1

Function	Average Data	Function	Average Data
H-Pos	86	Sub SECAM B-Y	187
V-Pos	97	Sub SECAM R-Y	72
H-Amp	57	Video Gain 2	145
V-Amp	184	DAF-H-PARA	287
Parabola	38	DAF V-SAW	9
Trapezoid	124	DAF V-PARA	28
H-Parallel	8	Coarse Convergence	Access
V-Linear	34	Fine Convergence	Access
Top-Corner	20		
Bottom-Corner	21		
V-S-Correct	10		
C-Correct	3		
G-LIMIT	135		
B-LIMIT	130		
WB-B-G-ST1	109		
R High(Drive)	0138		
G High(Drive)	0128		
B High(Drive)	0128		
R Low(Cut off)	0627		
G Low(Cut off)	0640		
B Low(Cut off)	0697		
Sub-Bright	28		
RF AGC 1	17		
Sub-Contrast	58		
Sub-Colour	65		
Sub-NTSC Tint	-1		
SECAM B-Y	189		
SECAM R-Y	68		
RF AGC 2	19		
Sub-NTSC Tint2	4		
SPL, Gain	0		

- Press the RED/GREEN button to step up/down thrpugh the functions.
- Press the YELLOW/BLUE button to change the function values.
- Press the STR button after each adjustment has been mode to store the required values.

①Set the Aspect mode 16:9.
  a. Receive PAL signal and adjust each item.
  b. Next. reveice NTSC signal and adjust each time.
②Set the Aspect mode 4:3.
  a. Receive PAL signal and confirm the picture.
  Adjust each item if necessary.
  b.Next, receive NTSC signal and confirm the picture.
  Adjust each item if necessary.

CH99
+
HOLD button

CH99
+
INDEX button

SERVICE 2

Function		Function	
Y/C Delay	11	OPTION 8	50
OPTION 1	CF	OPTION 9	C0
OPTION 2	FF	OPTION 10	82
OPTION 3	2B	OPTION 11	4E
OPTION 4	E2	OPTION 12	81
OPTION 5	DE	OPTION 13	7A
OPTION 6	51	Hours	
OPTION 7	4E		

6.3. Option Descrition

Options		HM HZ	X	H G	HQ		**ASIA**
option1		CF	CF	CF	CF		
0E0	b0	1	1	1	1	Colour system	Auto(1)
	b1	1	1	1	1		SECAM(1)
	b2	1	1	1	1		NTSC(1)
	b3	1	1	1	1		M.NTSC(1)
	b4	0	0	0	0	TV NTSC 50	Reserved
	b5	0	0	0	0	TV SECAM 60	Reserved
	b6	1	1	1	1	AV NTSC 50	Reserved
	b7	1	1	1	1	AV SECAM 60	Reserved
option2		FF	FF	FF	FF		
0E1	b0	1	1	1	1	CH Plan	ASIA / M.E. / HK / UK / CHINA(1)
	b1	1	1	1	1		NZ/INDNES(1)
	b2	1	1	1	1		AUSTRALIA(1)
	b3	1	1	1	1		E.EUROPE(1)
	b4	1	1	1	1		SPECIAL(1)
	b5	1	1	1	1		AMERICA(1)
	b6	1	1	1	1		CATV(1)
	b7	1	1	1	1		JAPAN(1)
option3		2B	2B	2B	2B		
0E2	b0	1	1	1	1	sub picture	without sub-picture(0), with sub-picture(1)
	b1	1	1	1	1	2tuner	2tuner(1), 1tuner(0)
	b2	0	0	0	0	VGA	enable(1)
	b3	1	1	1	1	YUV	enable(1)
	b4	0	0	0	0	CRT	16:9(1), 4:3(0) (change multi window / aspect operation)
	b5	1	1	1	1	HYPER	UHF only (0), UHF/VHF (1)
	b6	0	0	0	0	SIF	4.5 / 5.5 / 6.0 / 6.5(0), 5.5 / 6.0 / 6.5(1)
	b7	0	0	0	0		5.5 / 6.5(2), 6.0 / 6.5(3)
option4		E2	E2	E2	E2		
0E3	b0	0	0	0	0	A2 enable	4.5(1)
	b1	1	1	1	1		5.5(1)
	b2	0	0	0	0		6.0(1)
	b3	0	0	0	0		6.5(1)
	b4	0	0	0	0	NICAM enable	4.5(1)
	b5	1	1	1	1		5.5(1)
	b6	1	1	1	1		6.0(1)
	b7	1	1	1	1		6.5(1)
option5		DE	DE	DE	DE		
0E4	b0	0	0	0	0	A2 select 6.5MHz	5.742MHz(0) 6.742MHz(1)
	b1	1	1	1	1	NICAM priority	ASIA / M.E.(1)
	b2	1	1	1	1		HK / UK(1)
	b3	1	1	1	1		CHINA(1)
	b4	1	1	1	1		NZ / INDN(1)
	b5	0	0	0	0		AUSTRA(1)
	b6	1	1	1	1		E.EURO(1)
	b7	1	1	1	1		SPECIAL(1)

Options		HM HZ	X	H G	HQ		**ASIA**
option6		51	51	51	D1		
0E5	b0	1	1	1	1	VCR/GAME in search	On(0) Off(1)
	b1	0	0	0	0	SASO enable	SASO enable(1)
	b2	0	0	0	0	Noise mute	Noise mute enable(0)
	b3	0	0	0	0	Monitor out AV1 mute	Monitor out AV1 mute(1)
	b4	1	1	1	1	AV SW 3/2AV out	CXA2069Q(1) CXA2079Q(0)
	b5	0	0	0	0	Tuner	MACO tuner(0), ALPS tuner(1)
	b6	1	1	1	1	Child lock	Child lock enable(1)
	b7	0	0	0	1	No motion control	No motion cotrol in film mode(1)
option7		4E	4E	4E	4E		
0E6	b0	0	0	0	0	Power up EC-Mode	Power on EC enable (1)
	b1	1	1	1	1	CH Blanking	Blanking enable(1)
	b2	1	1	1	1	AV Blanking	Blanking enable(1)
	b3	1	1	1	1	Auto WIDE	WSS enable only in aspect Auto (0), WSS always enable (1)
	b4	0	0	0	0	Volume correction	TV Volume correction enable(1)
	b5	0	0	0	0	AVLink	Q-Link on/off selectable in menu(1)
	b6	1	1	1	1	MPX/NICAM display	Display NICAM(0), Display MPX(1)
	b7	0	0	0	0	free	
option8		50	50	50	D0		
0E7	b0	0	0	0	0	Teletext CH Refrech	enable (1)
	b1	0	0	0	0	Geomagnetic Sensor	Geomagnetic sensor enable(1)
	b2	0	0	0	0	Geomagnetic Polarity	Geomagnetic polarity +(0), -(1)
	b3	0	0	0	0	attenuater menu	Enable (1)
	b4	1	1	1	1	Fine tuning	Enable(1)
	b5	0	0	0	0	Search speed	Slow(1) Fast(0)
	b6	1	1	1	1	TEXT FLOF	Reserved
	b7	0	0	0	1	TEXT TOP	TOP enable(1)
option9		C0	C0	C0	C0		
0E8	b0	0	0	0	0	Dolby	Dolby enable (1)
	b1	0	0	0	0	3D Subwoofer	Subwoofer enable(1) Dolby model should be 0.
	b2	0	0	0	0	Optical 2 inputs	Optical 1 input(0), 2 inputs(1)
	b3	0	0	0	0	free	
	b4	0	0	0	0	free	
	b5	0	0	0	0	SL SR PHASE	NON REVERSE(0), REVERSE(1)
	b6	1	1	1	1	Volume curve	Volume curve1(0), curve2(1)
	b7	1	1	1	1	Volume EXDAC	Add Volume control by EXDAC(1)
option10		88	82	88	88		
0E9	b0	0	0	0	0	free	
	b1	0	1	0	0	OSD language	Arabic enable(1)
	b2	0	0	0	0		Russian enable(1)
	b3	1	0	1	1		Chinese enable(1)
	b4	0	0	0	0	Blue Back	enable(0)
	b5	0	0	0	0	BC Safety	Reserved
	b6	0	0	0	0	Protect XPR	Reserved
	b7	1	1	1	1	Protect 5V detect	Protection input enable(1)

Options Model		HM HZ	X	H G	HQ		ASIA
option11		4E	4E	4E	4E		
0EA	b0	0	0	0	0	Shop mode	Max contrast(1), Normal(0)
	b1	1	1	1	1	DDM/Dynamic display	Reserved
	b2	1	1	1	1	Sub Headphone	enable(1)
	b3	1	1	1	1	Scan mode Blanking	Blanking enable(1)
	b4	0	0	0	0	User aspect 14:9	enable(1)
	b5	0	0	0	0	NICAM C4 bit	enable(1)
	b6	1	1	1	1	ID-1	enable(1)
	b7	0	0	0	0	1080I	enable(1)
option12		81	81	81	83	Area Option	
0EB	b0	1	1	1	1	Asia	Asia(1), europe(0)
	b1	0	0	0	1	Australia	Australia(1)
	b2	0	0	0	0	Ireland	not use
	b3	0	0	0	0	UK	not use
	b4	0	0	0	0	MELCOA	MELCOA(1)
	b5	0	0	0	0	28 inch	28 inch(1) when only Large size=0, Wide=1, PTV=0
	b6	0	0	0	0	LED	52(1) / 42(0) for PTV, 36(1) / 32(0) for Wide, 34(1) / 29(0) for 4:3
	b7	1	1	1	1	PTV	PTV(1)
option13		7A	7A	72	7A	Temporary	
0EC	b0	0	0	0	0	VDU Version	A21(0), A12(1)
	b1	1	1	1	1	GC Version	ES5(0), ES6(1)
	b2	0	0	0	0	UV Swap	Swap(1)
	b3	1	1	0	1	TEXT	Enable(1)
	b4	1	1	1	1	Main GC ES7	ES7(1), ES5/6(0)
	b5	1	1	1	1	Sub GC ES7	ES7(1), ES5/6(0)
	b6	1	1	1	1	Picture Shift	ON(1), OFF(0)
	b7	0	0	0	0	CIP2	without CIP1(0), with CIP1(1)

7. CRT Set Up

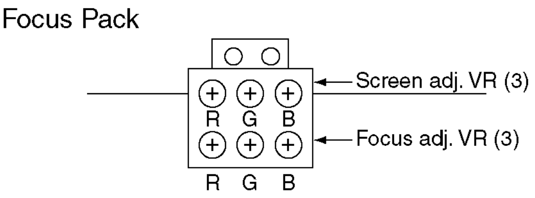
Caution:

Insure yoke plugs on the A-Board are reconnected before turning the Receiver ON to prevent damage to the horizontal output transistor and/or CRTs.

7.1. Dynamic Focus Adjustment

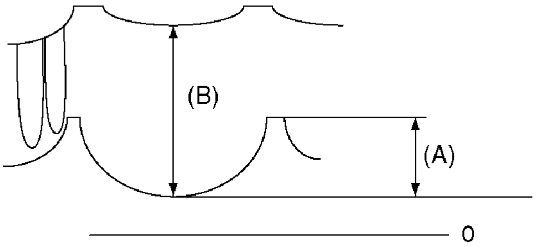
1. **Focus adjustments should be performed after 1 hour of aging.**
2. **Use oscilloscope with 100 : 1 probe.**
3. **Apply monoscope pattern.**
4. **Adjust the Red, Blue and Green focus VR on the focus block for best focus of overall picture of each CRT. (Fig. 2)**

Fig. 2



5. **Connect the scope probe to TPD20, GND to TPD21. Scope set at 20V/div & 5m sec./div.**
6. **Adjust V-PARA (Service mode1) so that waveform (A) is 380V ± 20V. (Fig. 3)**
7. **Adjust H-PARA (Service mode1) so that waveform (B) is 560V ± 40V. (Fig. 3)**

Fig. 3



8. **Proceed with Focus Adjustments.**

7.2. Electrical Focus Adjustment

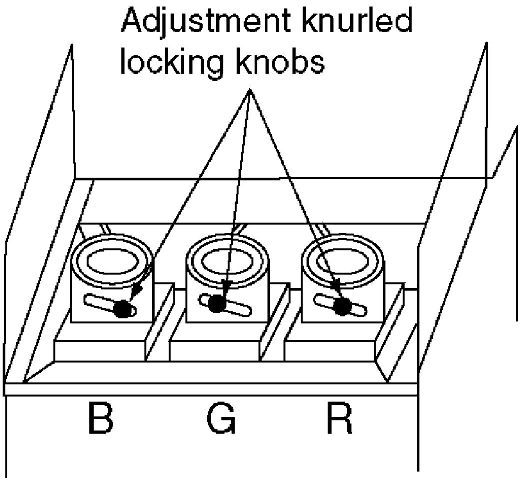
1. **Receive a monoscope pattern.**
2. **Cover the Red and Blue CRT, projecting Green only.**
   The electrical focus controls are located on the front. Adjust the Green Focus VR for best focus of overall picture. (Fig. 2)
3. **Repeat for Red focus VR while projecting Red only.**
4. **Repeat for Blue. (Best focus at bottom left corner of screen)**

7.3. Optical Lens Focus Adjustment

Note:
This adjustment normally should not require resetting unless the lens has been replaced or adjustment has changed.

1. **Optical focus adjustment is located on the top of each CRT lens system. Loosen the adjustment knurls locking knob. (Fig. 4)**

Fig. 4 (Rear view)



Optical lens focus adjustment

2. Turn the Receiver ON apply and view a monoscope pattern.
3. Adjust each lens focus for best focus while viewing each CRT.
4. Cover the Red and Blue CRT, projecting green only.Rotate the Green lens for best focus around screen center area.
5. Do the same for the Red focus lens while projecting Red only.
6. Repeat for Blue.

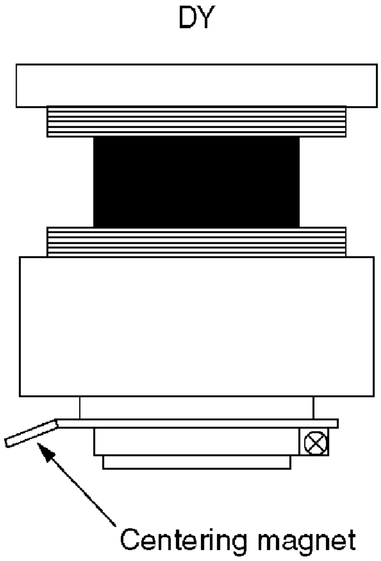
7.4. Centering Magnet Adjustment

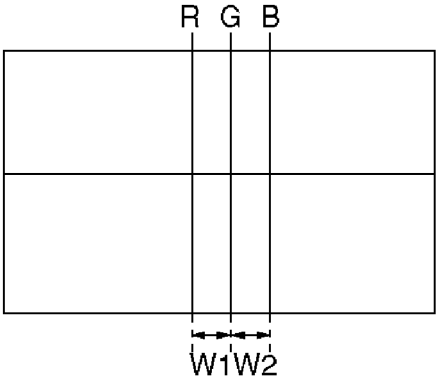
1. Receive a monoscope pattern.
2. Confirm that Coarse convergence data (Service mode1) for R,G and B is 0.
3. Set that Fine convergence data (Service mode1) is clear (no correction).
4. Set that V-Pos data (Service mode1) is [100].
5. Set that H-Pos data (Service mode1) is [55].
6. Set that H-Parallel data (Service mode1) is [8].

Procedure:

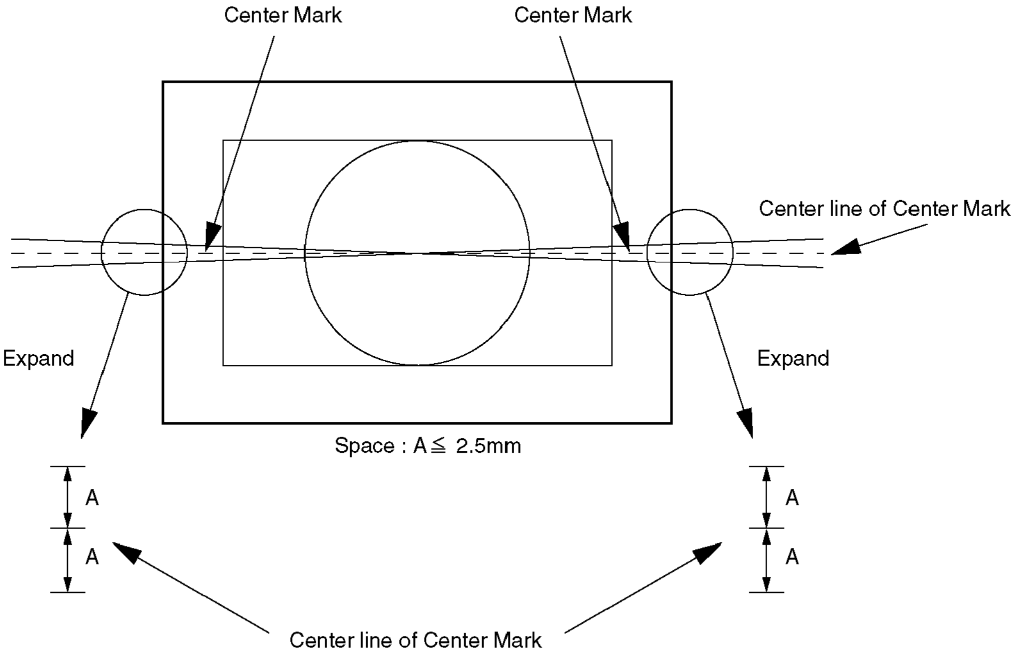
1. Cover the Red, Blue CRT lens, projecting Green only.
2. Adjust green centering magnet (DY) if the projected green horizontal/vertical line does not line up with the screen horizontal/ vertical center line.
3. Cover the Green, Red CRT lens, projecting Blue only.

4. **Repeat step 2. for blue.**
5. **Cover the Green, Blue CRT lens, projecting Red only.**
6. **Repeat step 2. for red.**
7. **Cover the Red, Blue CRT lens, projecting Green only.**
8. **Adjust green centering magnets until the center of the monoscope pattern line up with the screen center line.**
9. **Cover the Green, Red CRT lens, projecting Blue only.**
10. **Adjust blue centering magnets to position the center of the blue raster W2 away from the center of the green raster.**
11. **Cover the Green, Blue CRT lens, projecting Red only.**
12. **Adjust red centering magnets to position the center of the red raster W1 away from the center of the green raster.**


DY
Centering magnet



51inch	W1=17.5mm ± 2.5mm W2=17.5mm ± 2.5mm
43inch	W1=10.0mm ± 2.0mm W2=10.0mm ± 2.0mm

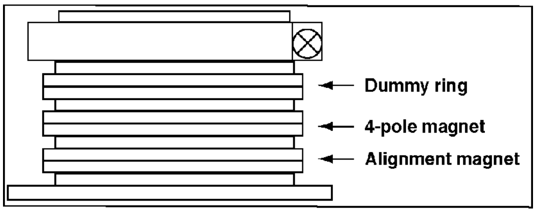

Center Mark
Center Mark
Center line of Center Mark
Expand
Expand
Space : A≦ 2.5mm
A
A
A
A
Center line of Center Mark

7.5. Alignment magnet Adjustment

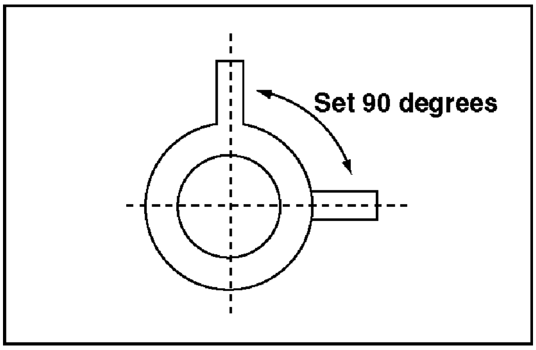
Preparation:

1. **Receive an cross hatch pattern with dots (pincushion).**
2. **Loosen the centering magnets screws.**
3. **Position the longer tab of the four-pole magnet to 90 degrees (uncorrected position).**

VM Coil with focus correction magnet

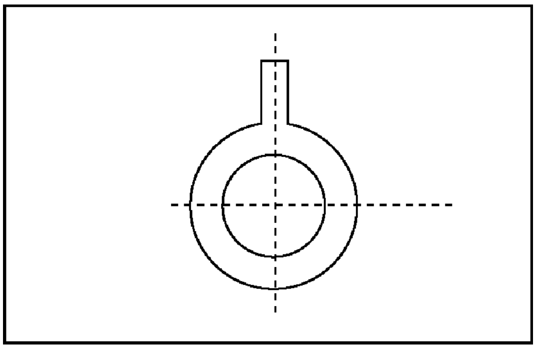

Dummy ring
4-pole magnet
Alignment magnet

4-pole magnet


Set 90 degrees

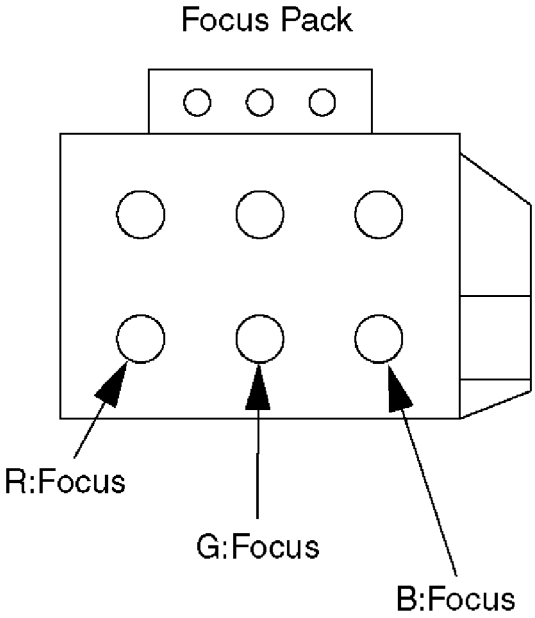
4. **Position the long tab of all alignment magnets and of the dummy ring together in an uncorrected position.**

Alignment magnet (or dummy ring)



Procedure:

1. **Receive an cross hatch pattern with dots.**
2. **Cover the Red, Blue CRT lens, projecting Green only.**
3. **Turn the green electrical focus adjustment VR (on focus pack) fully counterclockwise and note the position of the dots at the center of the picture.**
4. **Turn the green electrical focus adjustment VR fully clockwise.**
5. **Adjust the four pole magnets until the shape of the dot at the center of the screen is circular.**
6. **Adjust for best green electrical focus with green electrical focus adjustment VR.**
7. **Cover the Green, Red CRT lens, projecting Blue only.**
8. **Repeat step 4. ~ step 6. for blue electrical focus.**
9. **Cover the Green, Blue CRT lens, projecting Red only.**
10. **Repeat step 4. ~ step 6. for red electrical focus.**

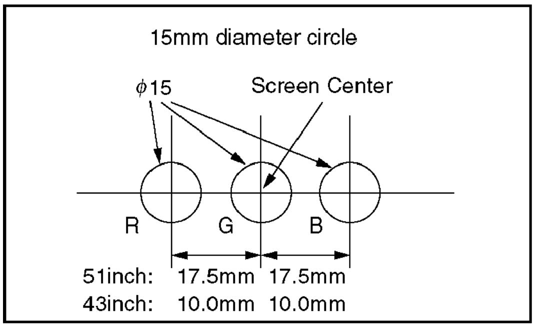

Focus Pack
R:Focus
G:Focus
B:Focus

11. Receive an monoscope pattern.

12. Cover the Red, Blue CRT lens, projecting Green only.

13. If the center of the monoscope pattern is not inside the 15mm circle, shown in below, adjust the centering magnets. Repeat the alignment magnet adjustments and four pole magnet adjustments (step 1. ~ step 6.)

Centering magnet adjustment


15mm diameter circle
ϕ15
Screen Center
R
G
B
51inch: 17.5mm 17.5mm
43inch: 10.0mm 10.0mm

14. Cover the Green, Blue CRT lens, projecting Red only.

15. Repeat step 13. for the red.

16. Cover the Green, Red CRT lens, projecting Blue only.

17. Repeat step 13. for the blue.

18. Following adjustments, fix the centering magnets of DY, dummy rings of VM coil, four pole magnets of VM coil and the alignment magnets of VM coil to prevent them from moving.

8. Deflection Adjustment

Caution

1. The following adjustment have to be carried out one with PAL signal (100i/50p) and with NTSC signal (60p/120i) .
2. Deflection adjustment need to set the Coarse/Fine Convergence to Zero Correction some time.
3. Before Deflection Adjustment are attempted, CRT Set up, Electrical Focus and Optical Lens Focus adjustment must be completed.

8.1. PAL 100Hz mode (100i)

8.1.1. Preparation

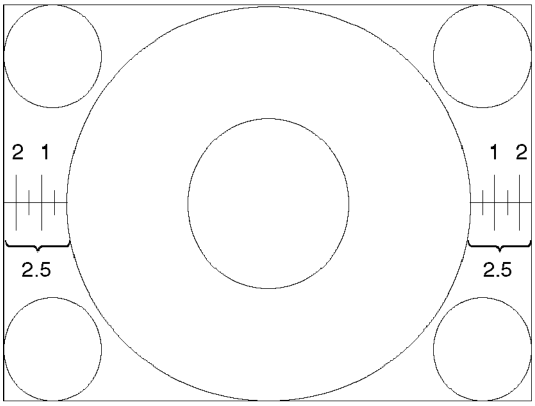
1. Receive PAL monoscope pattern.
2. Set scan mode to 100Hz.
3. Set the Picture Menu to NORMAL.
4. Set the TV to Service Mode 1.
5. Set the Data of Service Mode 1 as follow

H-Pos	55	Top-Corner	21
V-Pos	100	Bottom-Corner	21
H-Parallel	8	V-S-Correct	10
V-Linear	33	C-Correct	4

6. Push [0] button so that set the Data of Coarse/Fine Convergence to Zero Correction.
7. Push [HELP] button so that projecting Green only.

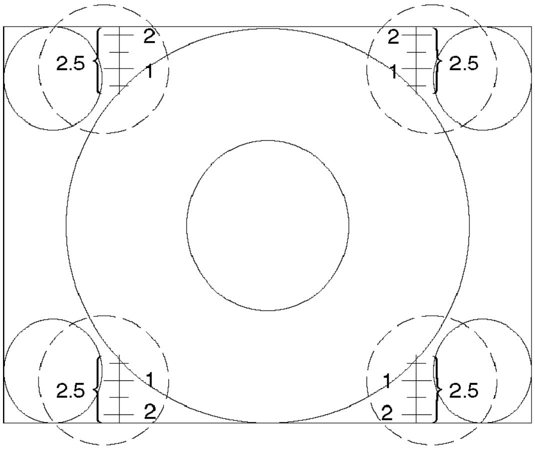
8.1.2. H-Pos and H-Amp Adjustment

1. Adjust Monoscope pattern for center of the screen by H-Pos control.
2. Adjust Horizontal amplitude for 2.5 ±0.1 division of a scale by H-Amp control.

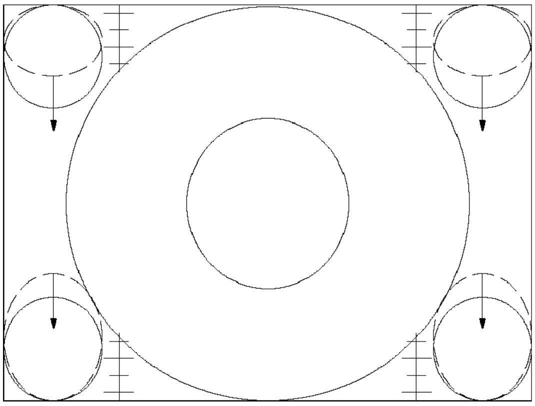


8.1.3. V-Amp, V-Linear and V-Pos Adjustment

1. **Adjust Vertical amplitude for 2.5 ± 0.1 division of a scale by V-Amp control.**



2. **Confirm Vertical Linear as to the balance of circle, if need adjust V-Linear control.**



3. **Confirm Vertical Center , if it is not correct, adjust Monoscope pattern for center of the screen by V-Pos control.**

8.1.4. Parabola and Trapezoid Adjustment

1. Receive PAL cross hatch pattern.
2. Adjust the vertical line to straight line by Parabola control.
3. Adjust the vertical line to straight line of both side Vertical line by Trapezoid control.

8.2. PAL Progressive mode (50p)

8.2.1. Preparation

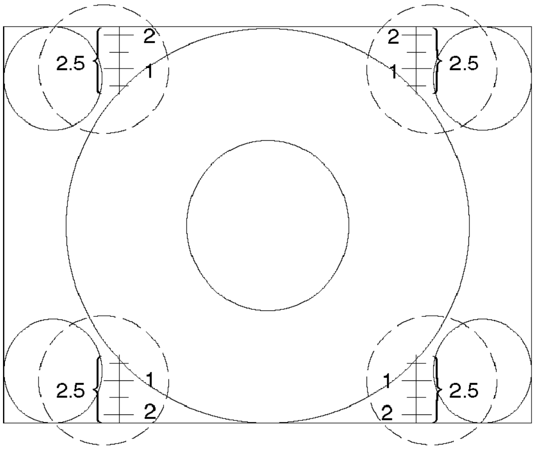
1. Receive PAL monoscope pattern.
2. Copy the Data of PAL 100Hz mode (100i) to PAL Progressive mode (50p)
3. Set scan mode to progressive.
4. Set the Picture Menu to NORMAL.
5. Set the TV to Service Mode 1.
6. Set the Data of Service Mode 1 as follow

H-Parallel	8	Bottom-Corner	21
V-Linear	36	V-S-Correct	10
Top-Corner	21	C-Correct	5

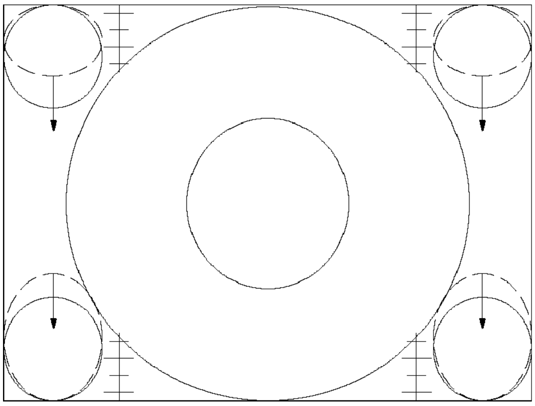
7. Push [0] button so that set the Data of Coarse/Fine Convergence to Zero Correction.
8. Push [HELP] button so that projecting Green only.

8.2.2. V-Amp, V-Linear and V-Pos Adjustment

1. Adjust Vertical amplitude for 2.5 ± 0.1 division of a scale by V-Amp control.



2. **Confirm Vertical Linear as to the balance of circle, if need adjust V-Linear control.**



3. **Confirm Vertical Center, if it is not correct, adjust Monoscope pattern for center of the screen by V-Pos control.**

8.3. NTSC Progressive mode (60p)

8.3.1. Preparation

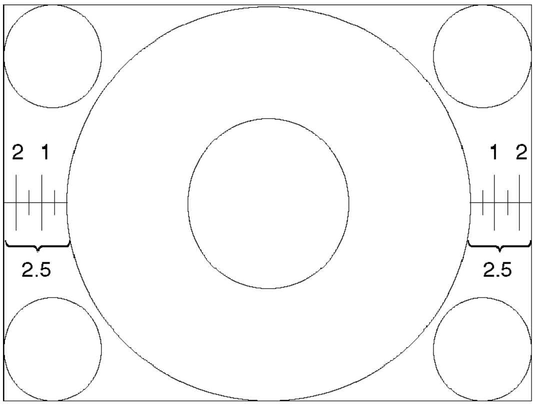
1. **Receive NTSC monoscope pattern.**
2. **Set scan mode to Progressive.**
3. **Set the Picture Menu to NORMAL.**
4. **Set the TV to Service Mode 1.**
5. **Set the Data of Service Mode 1 as follow**

H-Parallel	**8**	**Bottom-Corner**	**21**
V-Linear	**35**	**V-S-Correct**	**10**
Top-Corner	**20**	**C-Correct**	**4**

6. Push [0] button so that set the Data of Coarse/Fine Convergence to Zero Correction.
7. Push [HELP] button so that projecting Green only.

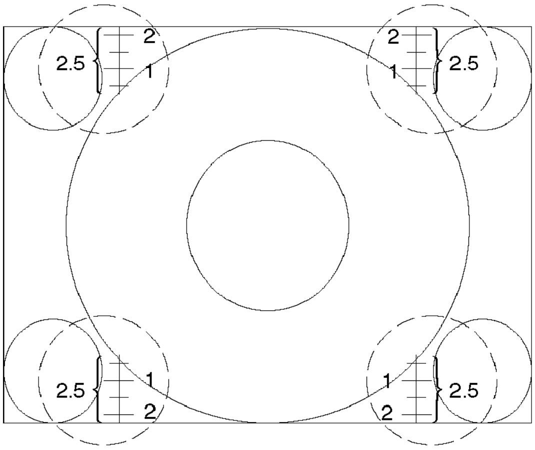
8.3.2. H-Pos and H-Amp Adjustment

1. Adjust Monoscope pattern for center of the screen by H-Pos control.
2. Adjust Horizontal amplitude for 2.5 ± 0.1 division of a scale by H-Amp control.

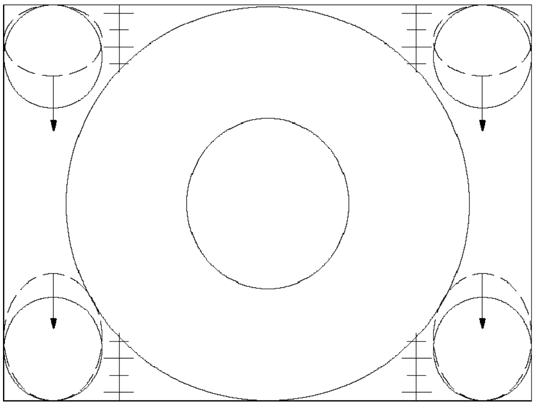


8.3.3. V-Amp, V-Linear and V-Pos Adjustment

1. Adjust Vertical amplitude for 2.5 ± 0.1 division of a scale by V-Amp control.



2. Confirm Vertical Linear as to the balance of circle, if need adjust V-Linear control.



3. Confirm Vertical Center, if it is not correct, adjust Monoscope pattern for center of the screen by V-Pos control.

8.3.4. Parabola and Trapezoid Adjustment

1. Receive NTSC cross hatch pattern.
2. Adjust the vertical line to straight line by Parabola control.
3. Adjust the vertical line to straight line of both side Vertical line by Trapezoid control.

8.4. NTSC 120Hz mode (120i)

8.4.1. Preparation

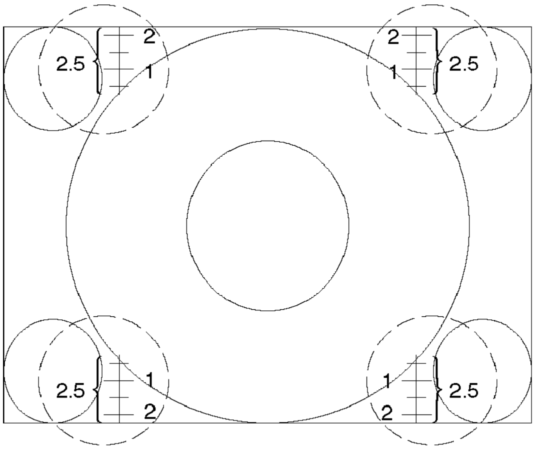
1. Receive PAL monoscope pattern.
2. Copy the Data of to NTSC Progressive mode (60p) to NTSC 120Hz mode (120i).
3. Set the Picture Menu to NORMAL.
4. Set scan mode to 120Hz.
5. Set the TV to Service Mode 1.
6. Set the Data of Service Mode 1 as follow

H-Parallel	8	Bottom-Corner	21
V-Linear	30	V-S-Correct	10
Top-Corner	20	C-Correct	4

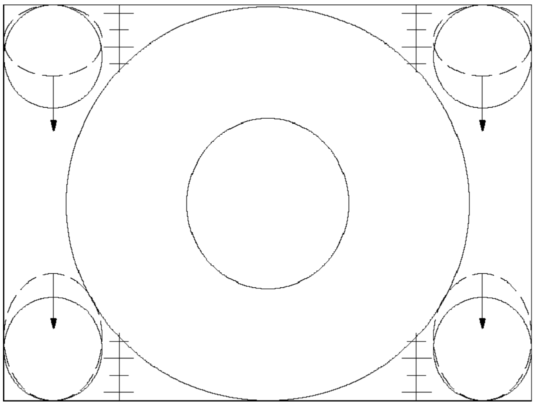
7. Push [0] button so that set the Data of Coarse/Fine Convergence to Zero Correction.
8. Push [HELP] button so that projecting Green only.

8.4.2. V-Amp, V-Linear and V-Pos Adjustment

1. **Adjust Vertical amplitude for 2.5 ±0.1 division of a scale by V-Amp control.**



2. **Confirm Vertical Linear as to the balance of circle, if need adjust V-Linear control.**



3. **Confirm Vertical Center, if it is not correct, adjust Monoscope pattern for center of the screen by V-Pos control.**

8.5. 525p Deflection Adjustment / Confirmation

8.5.1. V / H-Deflection confirmation

1. **Receive 525p signal.**
2. **Confirm V / H-Deflection is normal.**

8.5.2. H-Pos confirmation / Adjustment

1. **Receive 525p signal.**
2. **Confirm H-Pos and if need, adjust H-Pos.**

8.6. 625p Deflection Adjustment / Confirmation

8.6.1. V / H-Deflection confirmation

1. Receive 625p signal.
2. Confirm V / H-Deflection is normal

8.6.2. H-Pos confirmation / Adjustment

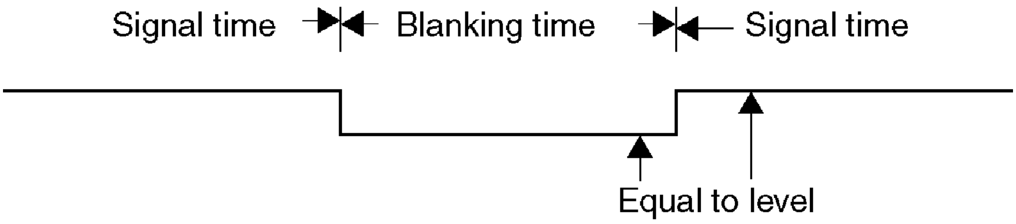
1. Receive 625p signal.
2. Confirm H-Pos and if need, adjust H-Pos.

9. Adjustment Procedure

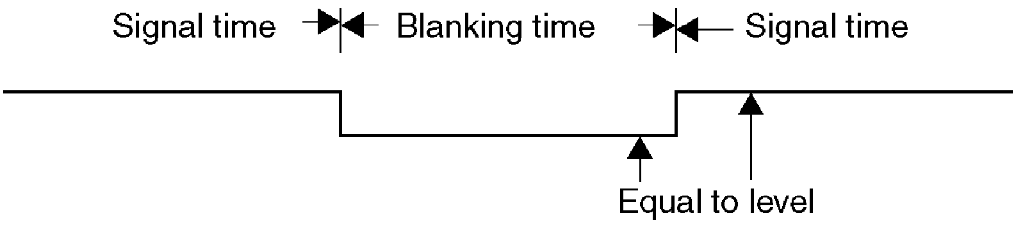
9.1. SECAM Black Level Adjustment

Preparation
Picture Menu: Dynamic
AI: ON
Adjustment

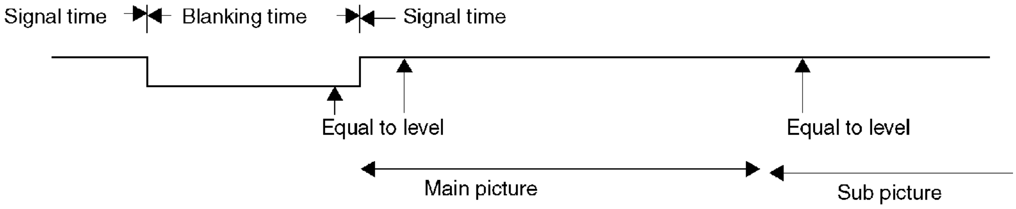
1. Receive SECAM white pattern.
2. Connect an oscilloscope to A44 pin 39(B-Y OUT) on A-Board.
3. Adjust SECAM B-Y so that H-blanking time and colour center are equal level.


Signal time
Blanking time
Signal time
Equal to level

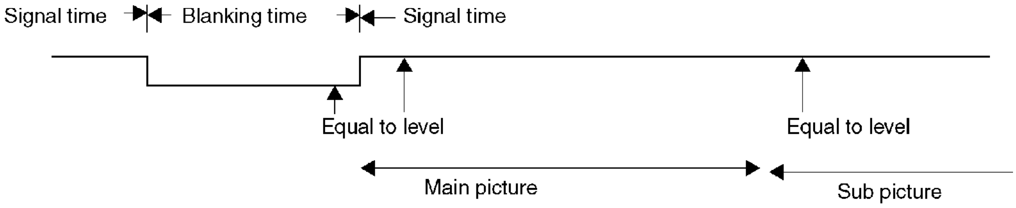
4. Connect an oscilloscope to A44 pin 41(R-Y OUT) on A-Board.
5. Adjust SECAM R-Y so that H-blanking time and colour center are equal level.


Signal time
Blanking time
Signal time
Equal to level

6. Connect an oscilloscope to A44 pin 39(B-Y OUT) on A-Board.
7. Adjust Sub SECAM B-Y so that H-blanking time and colour center are equal level.


Signal time
Blanking time
Signal time
Equal to level
Equal to level
Main picture
Sub picture

8. Connect an oscilloscope to A44 pin 41(R-Y OUT) on A-Board.
9. Adjust Sub SECAM R-Y so that H-blanking time and colour center are equal level.


Signal time
Blanking time
Signal time
Equal to level
Equal to level
Main picture
Sub picture

9.2. Cut off Adjustment

Preparation

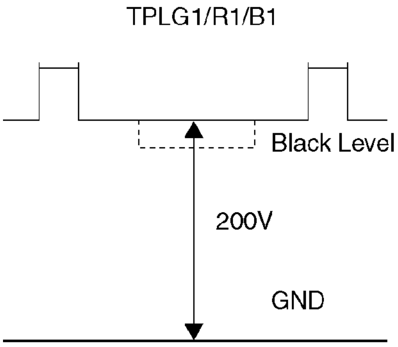
Picture Menu : Dynamic WB-B-G-ST1 : 255
C Temp : Standard High-RGB : 128
AI : ON Low-RGB : 640
P-NR : ON Cut off : A8
Scan Mode : 100Hz (PAL) G-Limit : 255
Screen VR : Full Counterclockwise B-Limit : 255

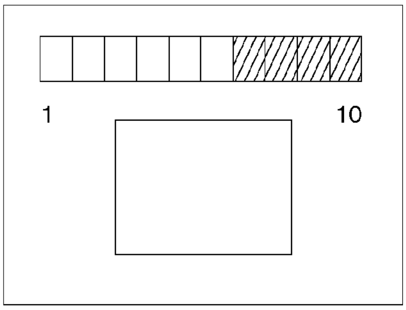
Adjustment

1. Receive a Black Level pattern.
2. Connect an oscilloscope to TPLG1 on LG-Board.
3. Adjust Sub Bright so that the waveform A is 200 ± 2V.
4. Connect an oscilloscope to TPLR1 on LR-Board.
5. Adjust Low-R so that the waveform A is 200 ± 2V.
6. Connect an oscilloscope to TPLB1 on LB-Board.
7. Adjust Low-B so that the waveform A is 200 ? 2V.
8. It pushes and it makes a [HELP] key the project only of GREEN.
9. The 6th paragraph shines faintly with the screen VR of GREEN and the 7th paragraph does to the sinking style.
10. It pushes and it makes a [HELP] key the project only of RED.
11. The paragraph shines faintly with the screen VR of RED and the 7th paragraph does to the sinking style.

12. It pushes and it makes a [HELP] key the project only of BLUE.

13. The 6th paragraph shines faintly with the screen VR of BLUE and the 7th paragraph does to the sinking style.





9.3. Sub Contrast / G-Limit Adjustment

Preparation

Picture Menu : Dynamic WB-B-G-ST1 : 255
C Temp : Standard High-RGB : 128
AI : ON Low-RGB : 640
P-NR : ON G-Limit : 255
Scan Mode : 100Hz (PAL)
Cut off Adjustment has been adjusted

Adjustment

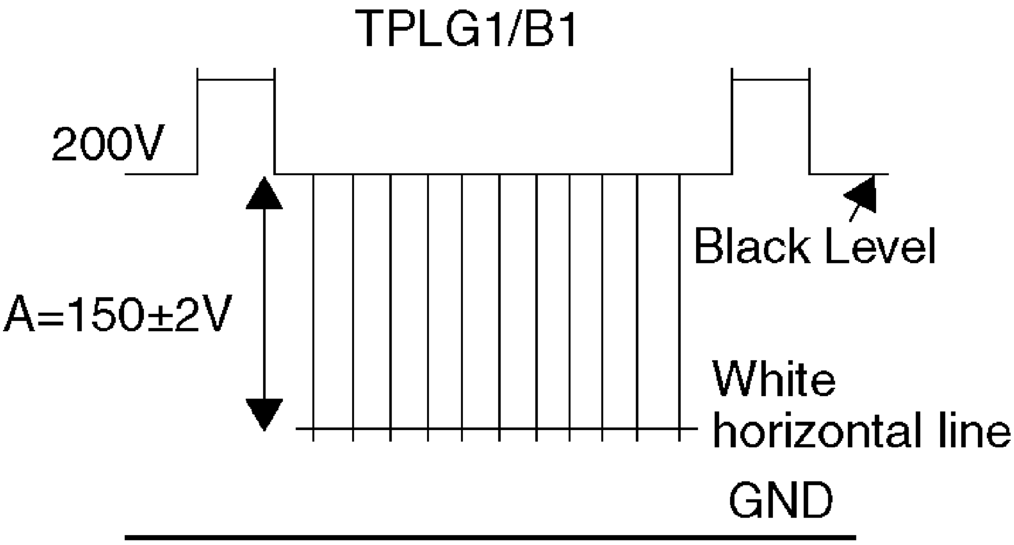
1. Receive a Cross Hatch pattern.

2. Connect an oscilloscope to TPLG1 on LG-Board.

3. Adjust Sub Contrast so that the waveform A is 150 ± 2V.

4. Before G-Limit Adjustment is attempted, Sub Contrast adjustment must be completed.

5. Adjust G-Limit so that the waveform A is 125 ± 2V.


TPLG1/B1
200V
Black Level
A=150±2V
White horizontal line
GND

9.4. Sub Picture Contrast Adjustment

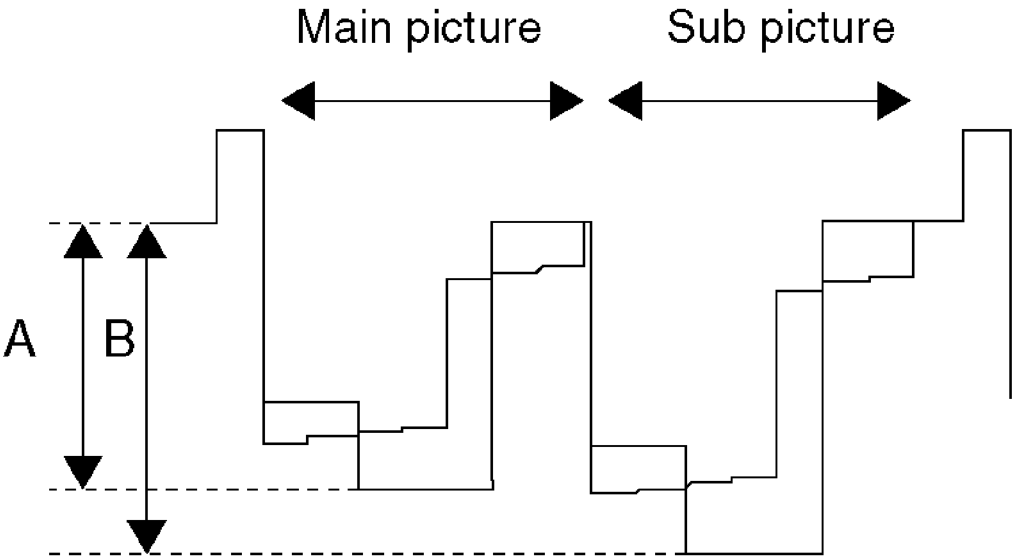
Preparation

Picture Menu : Dynamic

AI : ON

Adjustment

1. **Receive a Colour Bar pattern.**
2. **Connect an oscilloscope to TPLG1 on LG-Board.**
3. **Increment / Decrement Video gain2 to adjust Sub-Video level B as same as Main video level A.**


Main picture
Sub picture
A
B

9.5. NTSC Tint Adjustment

Preparation

Picture Menu : Dynamic **P-NR : ON**

C Temp : Standard **Scan Mode : 100Hz (PAL)**

AI : ON

Adjustment

1. **Receive a Rainbow (NTSC 3.58Hz) pattern.**
2. **Connect an oscilloscope to TPLR1 on LR-Board.**
3. **Adjust Sub NTSC Tint so that the peak of level of waveform is similar to Fig. A.**

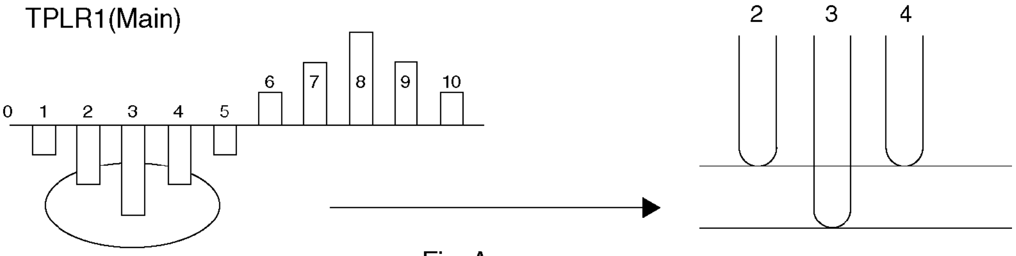

TPLR1(Main)
0
1
2
3
4
5
6
7
8
9
10
2
3
4

Fig. A

4. **Receive a Rainbow (NTSC 3.58Hz) pattern on both of Main and Sub picture.**
5. **Adjust Sub NTSC Tint 2 so that the peak of level of waveform is similar to Fig. B.**

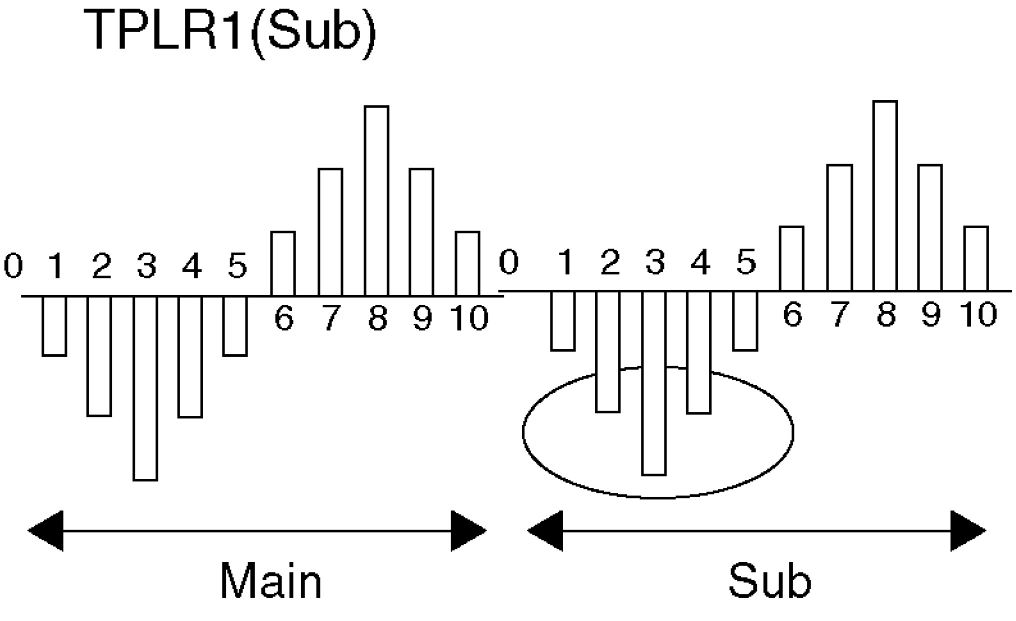

TPLR1(Sub)
0 1 2 3 4 5
6 7 8 9 10
0 1 2 3 4 5
6 7 8 9 10
Main
Sub

Fig. B

9.6. Sub Color Adjustment

Preparation

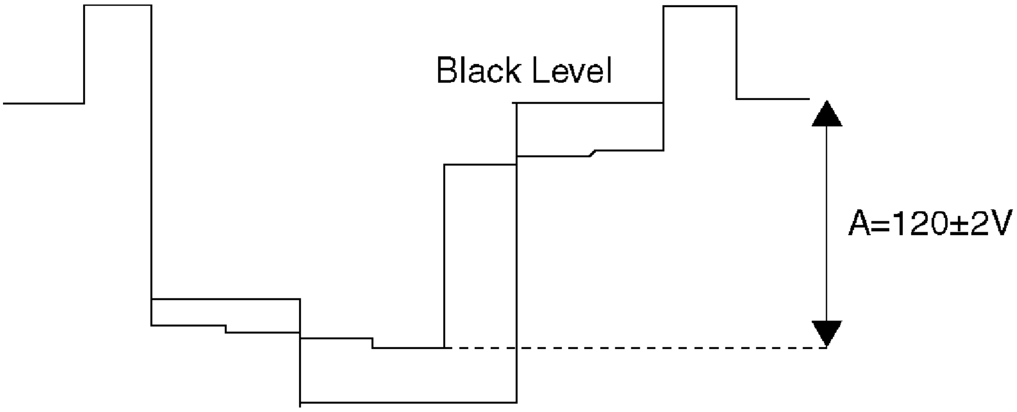
Picture Menu : Dynamic P-NR : ON

C Temp : Standard Scan Mode : 100Hz (PAL)

AI : ON ACL : OFF

Adjustment

1. Receive a PAL Colour Bar pattern.
2. Connect an oscilloscope to TPLG1 on LG-Board.
3. Adjust Sub Color so that the waveform A is 120 ± 2V.



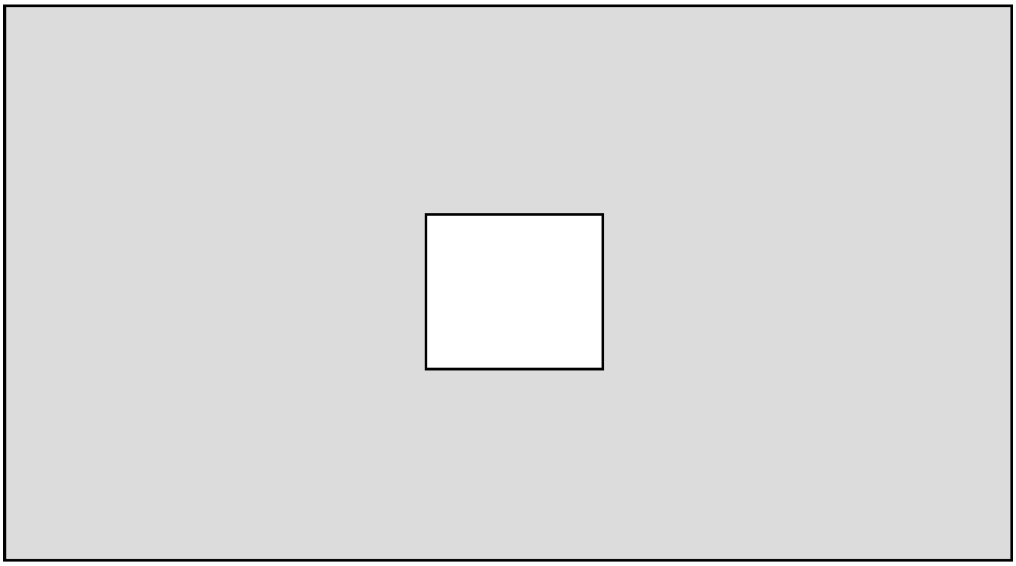
9.7. Blue Focus / Gamma Adjustment

Preparation

Picture Menu : Dynamic WB-B-G-ST1 : 0
C Temp : Standard B-Limit : 255
AI : ON
P-NR : ON
Scan Mode : 100Hz (PAL)

Adjustment

1. Set the White Balance Meter on Screen center.
2. Receive a Window pattern.
3. Set the Sub Contrast and High-B to Max.
4. It pushes and it makes a [HELP] key the project only of BLUE.
5. Adjust Blue Focus VR so that Y is 4.0 ± cd/m^2



9.8. White Balance Adjustment

Preparation

Picture Menu : Dynamic   Sub Bright : 60
C Temp : Dynamic   High R : 90
AI : ON   High G : 128
P-NR : ON   High B : 90
Scan Mode : 100Hz (PAL)   WB-B-G-ST1 : 130
Low G : 640

Adjustment

1. **Set the White Balance Meter on Screen center.**
2. **Receive a Window pattern.**
3. **Adjust Sub Bright so that the 6th paragraph shines faintly and the 7th paragraph does to the sinking style.**
4. **Adjust High R, WB-B-G-ST1, High B, Low R, and Low B to the table value.**

Mode	Bright	Controle DAC name		Target (x)	C. Temp	MPCD
	(cd/m^2)	RED	BLUE	(y)	(K)	
Hi	80	High R	WB–B–G–ST1	0.270 ± 0.005	13000 ± 500	–5 ± 5
				0.244 ± 0.005		
Mid	20	– – –	High B	0.277	11500 ± 500	–20 ± 5
				0.244 ± 0.005		
Low	1.8	Low R	Low B	0.287 ± 0.008	9200 ± 500	–25 ± 5
				0.240 ± 0.008		

9.9. Sub Bright Adjustment

Preparation

Picture Menu : Dynamic   P-NR : ON
C Temp : Dynamic   Scan Mode : 100Hz (PAL)
AI : ON

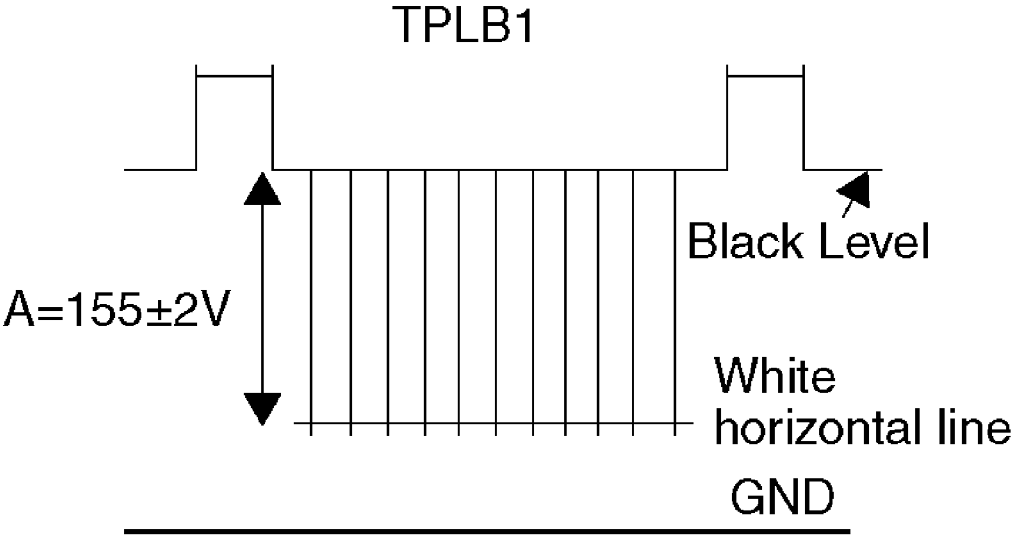
Cut off and White Balance Adjustment has been adjusted
Adjustment

1. Set the White Balance Meter on Screen center.
2. Receive a PAL Window pattern.
3. Adjust Sub Bright so that the 7th paragraph shines faintly and the 8th paragraph does to the sinking style.

9.10. Blue Limit Adjustment

Preparation
Picture Menu : Dynamic
C Temp : Standard
AI : ON
P-NR : ON
Scan Mode : 100Hz (PAL)
White Balance Adjustment has been adjusted
Adjustment

1. Receive a Cross Hatch pattern.
2. Connect an oscilloscope to TPLB1 on LB-Board.
3. Adjust B-LIMIT so that the waveform A is 155 ± 2V.



10. Convergence Adjustment

The convergence adjustment is set separately for each 50/100Hz/ 60/100Hz input (NTSC, PAL/ SECAM). The following explanation uses the PAL mode as an example, since the same procedure applies to the convergence adjustmentfor NTSC mode.
When replacing the following Parts.
IC7101 (EEP-ROM in Digital Convergence Circuit)L551 (Pincushion Coil)High Voltage Producing PartsOther Parts (If change the convergence)
Create an Adjustment Sheet by tracing the following specifications in their actual size on transparent film or tracing paper.Then adjust the convergence.

When replacing one of the CRT's.

Adjust the convergence for each of the 50/100Hz and 60/120Hz inputs so that they are aligned with the other colours.

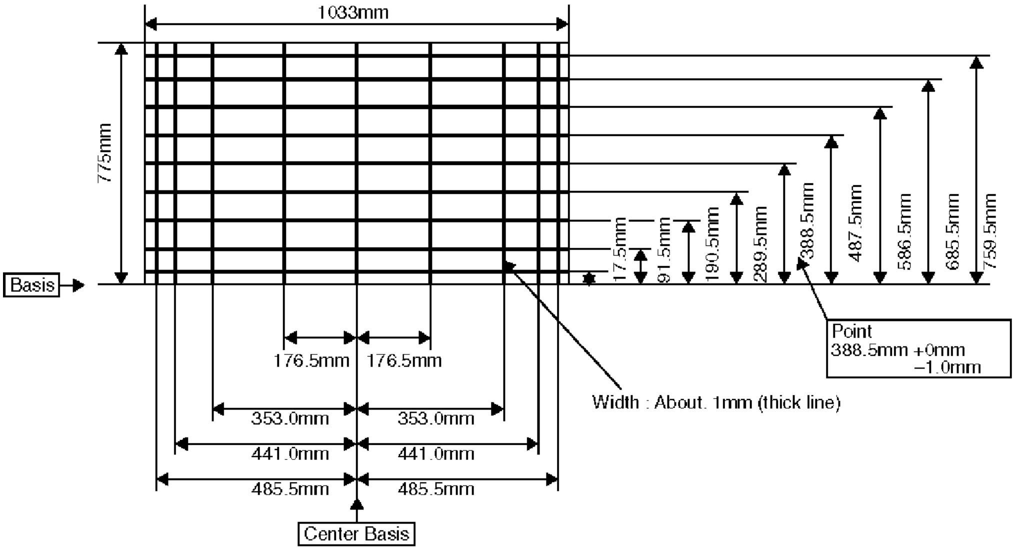
Helpful Hint

All positions which have been adjusted are recorded within P-2 for NTSC data and P-3 for PAL data of the memory.This data can be copied to P-4 memory area, allowing you to perform the adjustment of P-2 (NTSC) and P-3 (PAL).To perform these adjustments,push the SEARCH button on the remote control, and manipulate the position [▲] and [▼] button and the "N" button as instructedby the On Screen Display in Fine Convergence adjustment.

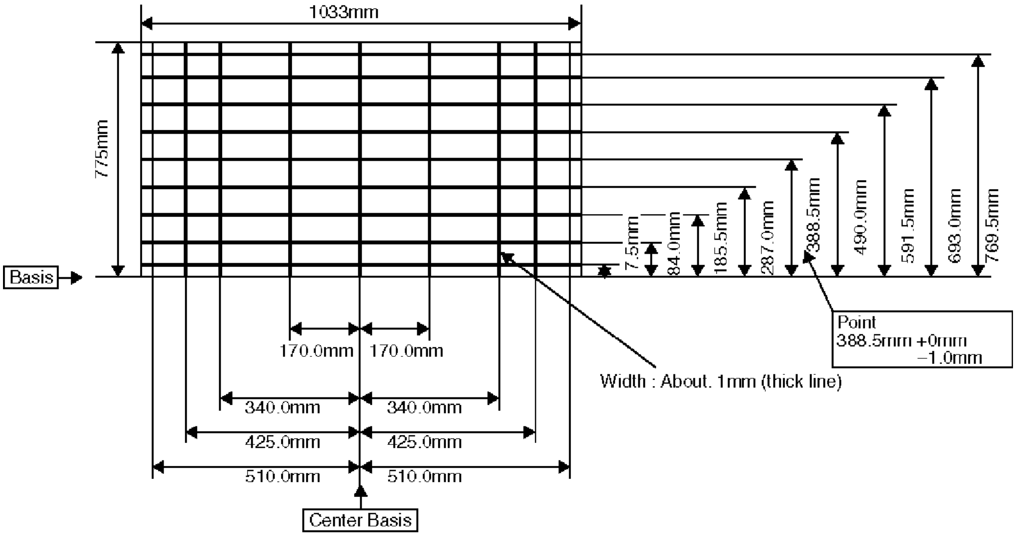
All of the Convergence Control Charts have been listed for the remote control buttons after the Convergence Adjustment Procedure Please refer to these.(Page 29 and 30)

10.1. Convergence Adjutment Sheet

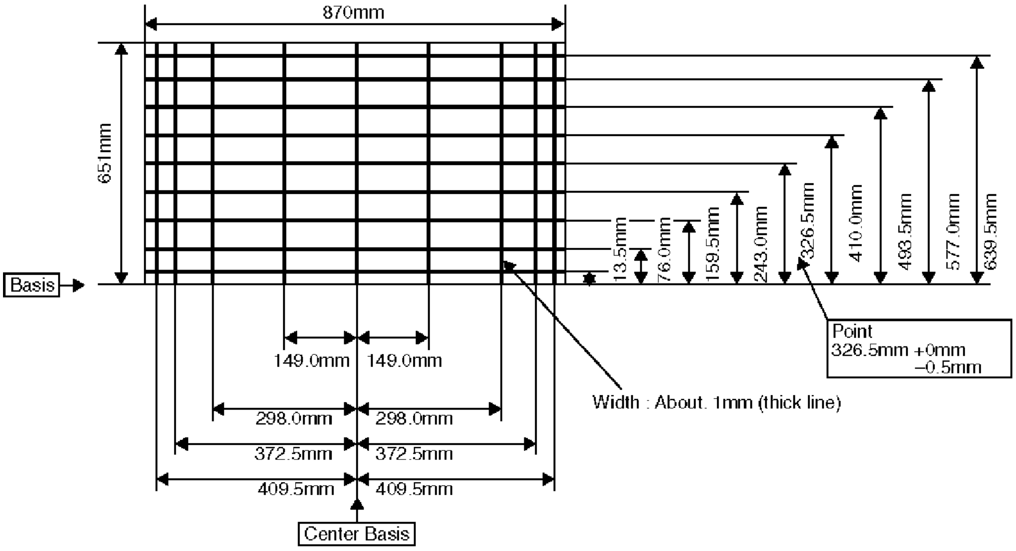
51 inch PAL (100i & 50p)


1033mm
775mm
Basis
17.5mm
91.5mm
190.5mm
289.5mm
388.5mm
487.5mm
586.5mm
685.5mm
759.5mm
Point
388.5mm +0mm
−1.0mm
176.5mm
176.5mm
Width : About. 1mm (thick line)
353.0mm
353.0mm
441.0mm
441.0mm
485.5mm
485.5mm
Center Basis

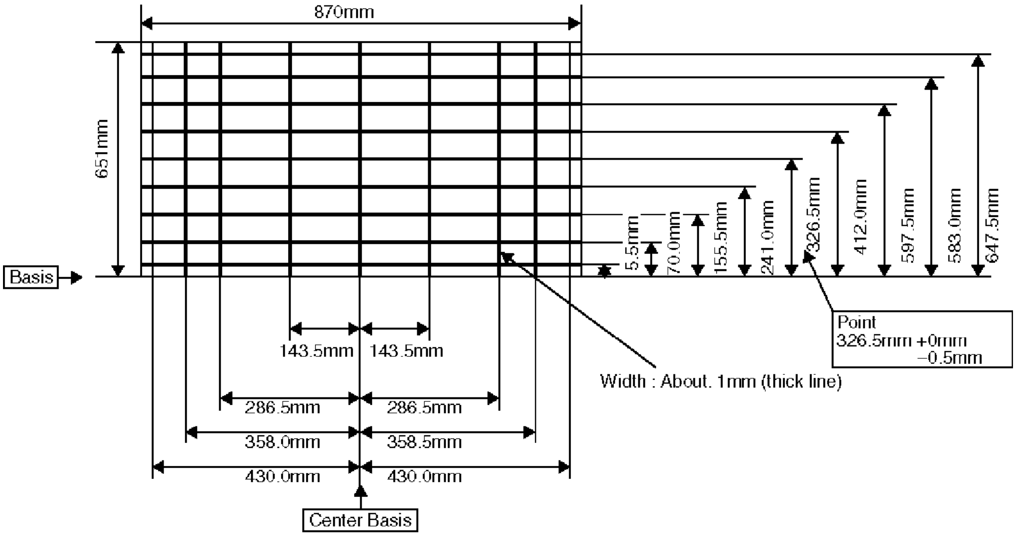
51 inch NTSC (120i & 60p)


1033mm
775mm
Basis
7.5mm
84.0mm
185.5mm
287.0mm
388.5mm
490.0mm
591.5mm
693.0mm
769.5mm
Point
388.5mm +0mm
−1.0mm
170.0mm
170.0mm
Width : About. 1mm (thick line)
340.0mm
340.0mm
425.0mm
425.0mm
510.0mm
510.0mm
Center Basis

43 inch PAL (100i & 50p)


870mm
651mm
Basis
13.5mm
76.0mm
159.5mm
243.0mm
326.5mm
410.0mm
493.5mm
577.0mm
639.5mm
Point
326.5mm +0mm
−0.5mm
149.0mm
149.0mm
Width : About. 1mm (thick line)
298.0mm
298.0mm
372.5mm
372.5mm
409.5mm
409.5mm
Center Basis

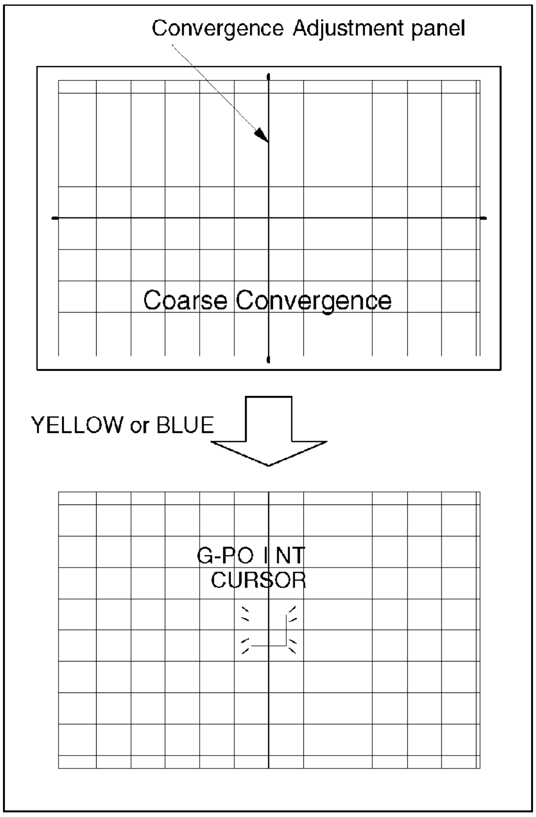
43 inch NTSC (120i & 60p)


870mm
651mm
Basis
5.5mm
70.0mm
155.5mm
241.0mm
326.5mm
412.0mm
597.5mm
583.0mm
647.5mm
Point
326.5mm +0mm
−0.5mm
143.5mm
143.5mm
Width : About. 1mm (thick line)
286.5mm
286.5mm
358.0mm
358.5mm
430.0mm
430.0mm
Center Basis

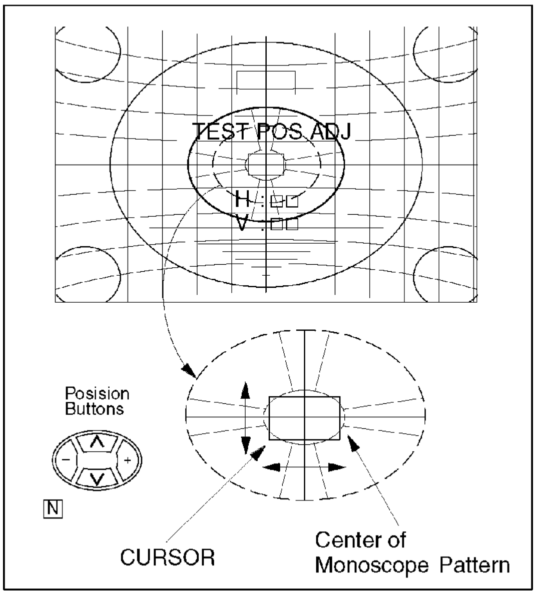
10.2. Convergence Adjustment Procedure

1. **Input a monoscope pattern of PAL.**
2. **Enter the Service Mode1.**
3. **Select the Coarse Convergence by pushing "RED" or "GREEN" buttons. Then push "YELLOW" button, and push Position and [N] buttons to set the data to zero.**
4. **Stick the Convergence Adjustment Sheet (PAL 50Hz) onto the screen.**
5. **Push the “YELLOW” or “BLUE” on the remote control, and enter**

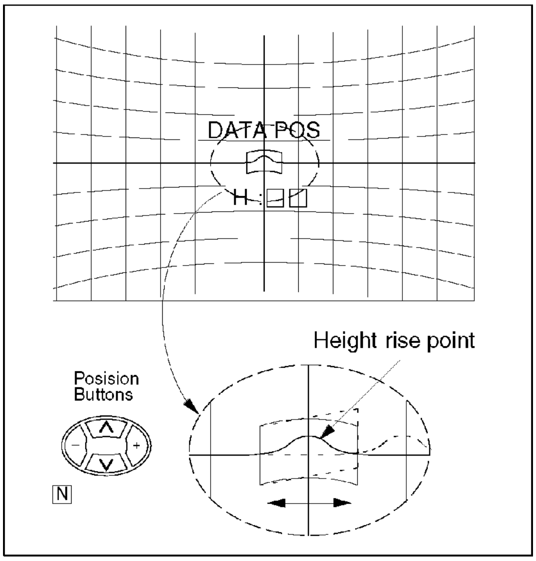
the Coarse Convergence Adjustment mode.


Convergence Adjustment panel
Coarse Convergence
YELLOW or BLUE
G-POINT
CURSOR

6. Push the "0" of 10 key buttons, and then push the "N" of position buttons on the remote control.
7. Enter to "TEST POS." mode.
8. Push the "5" button to display the monoscope pattern on the screen.
9. Adjust the position buttons so that the cursor in the center of the test pattern is aligned with the center of the monoscope pattern.


TEST POS.ADJ
H:
V:
Posision Buttons
N
CURSOR
Center of Monoscope Pattern

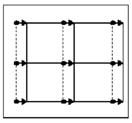
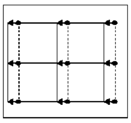
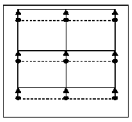
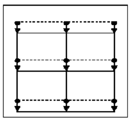
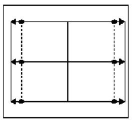
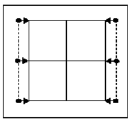
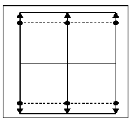
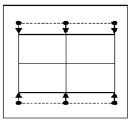
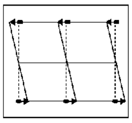
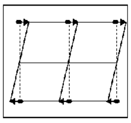
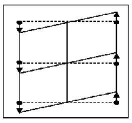
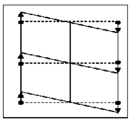
10. **Push the "TV/AV" button on the remote control, and enter the "DATA POS." mode.**
11. **Push the "5" button and close the background image (monoscope pattern).**
12. **Use the "◀" and "▶" of the position buttons so that the bump in the screen center line is at the center of the cursor.**

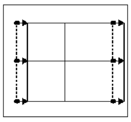
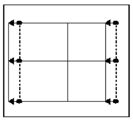
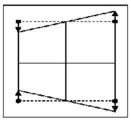
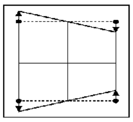
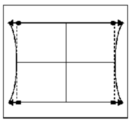
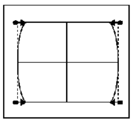
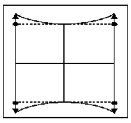
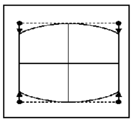
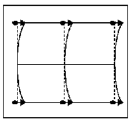
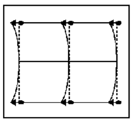

DATA POS
H:
Height rise point
Posision Buttons
N

13. **Push the "TV/AV" button twice, and enter the "OSD POS" mode.**
14. **Adjust the position buttons so that the cross-cursor is aligned near cross-bar.**
15. **Push the "SET UP" button, and "N" button to store data.**

16. Push the "0" of 10 key buttons, and return to Coarse Convergence Adjustment mode.

10.3. Coarse Convergence Adjustment mode

MODE		SAMPLE DATA			DAC DATA UP	DAC DATA DOWN
1	STATIC	H	R	162		
			G	26		
			B	−83		
		V	R	28		
			G	30		
			B	38		
2	SIZE	H	R	−87		
			G	−23		
			B	−65		
		V	R	−35		
			G	−72		
			B	−41		
3	SKEW	H	R	−8		
			G	−4		
			B	7		
		V	R	−4		
			G	4		
			B	28		

MODE		SAMPLE DATA			DAC DATA UP	DAC DATA DOWN
3	LINEARITY	H	R	−132		
			G	79		
			B	336		
4	KEYSTONE	V	R	262		
			G	+94		
			B	−67		
5	PIN	H	R	83		
			G	58		
			B	51		
		V	R	338		
			G	410		
			B	391		
6	CORNER	H	R	+21		
			G	−7		
			B	−67		

10.3.1. Green Coarse Convergence Adjustment

10.3.1.1. Reparation

Push the "SOUND" button, and select the Green Adjustment mode.Push the "2" button, and select the "Border and Cross" pattern.Push the "MUTE" button, and select the "Green" colour.

10.3.1.2. "G-SIZE (V)" adjustment

Push the "TV/AV" buttons, and select the "G-SIZE (V)".Push the "Channel up/down" buttons, and adjust the upper and lower boarder line of test pattern is aligned with the edge of the screen frame.

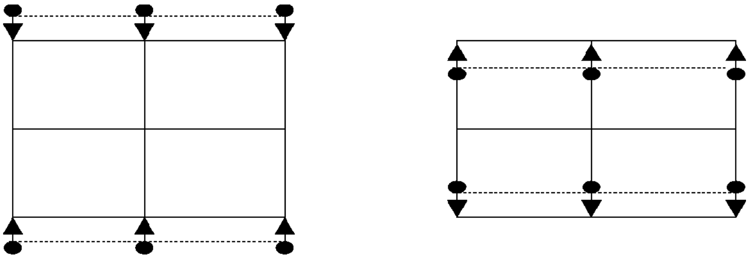


Fig. A : V–SIZE

10.3.1.3. "G-SIZE (H)" adjustment

Push the "TV/AV" buttons, and select the "G-SIZE (H)".Push the "Volume up/down" buttons, and adjust the boarder line on either side of test pattern is aligned with the edge of the screen frame.

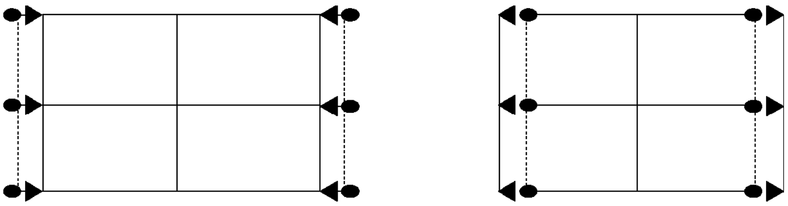


Fig. B : H–SIZE

10.3.1.4. "G-LINEAR" adjustment

Push the "TV/AV" buttons, and select the "G-LINEAR".Push the "Volume up/down" buttons, and adjust the "G-LINEAR" to become the following figure.

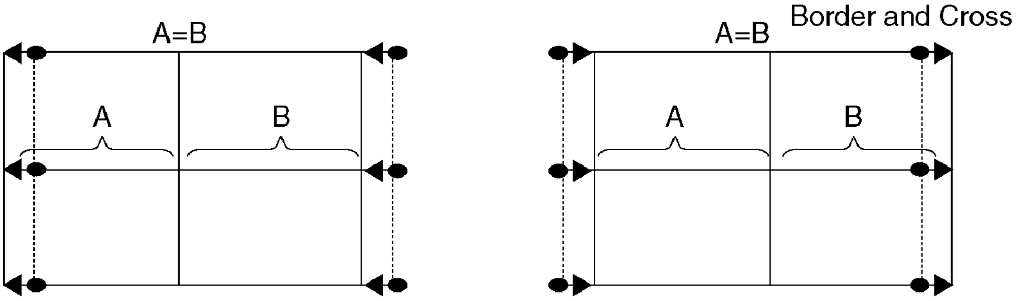


Fig.C : LINEAR

10.3.1.5. "G-PIN (V)" adjustment

Push the "TV/AV" buttons, and select the "G-PIN".Push the "Channel up/down" buttons, and adjust the "G-PIN (V)" to become the following figure.

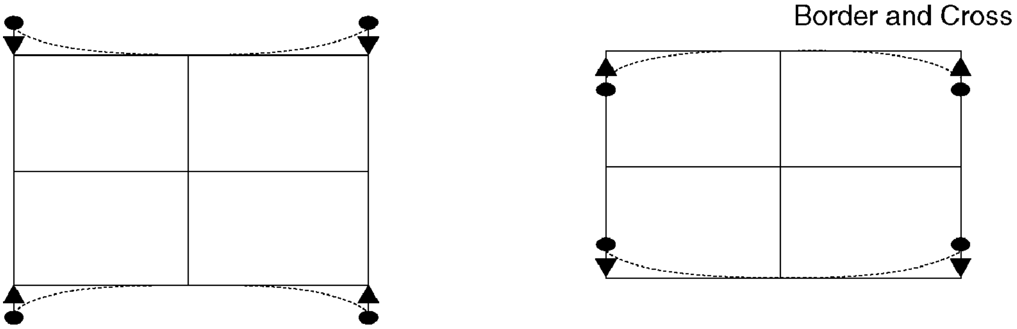


Fig.D : V-PIN

10.3.1.6. "G-PIN (H)" adjustment

Push the "TV/AV" buttons, and select the "G-PIN".Push the "Volume up/down" buttons, and adjust the "G-PIN (H)" to become the following figure.

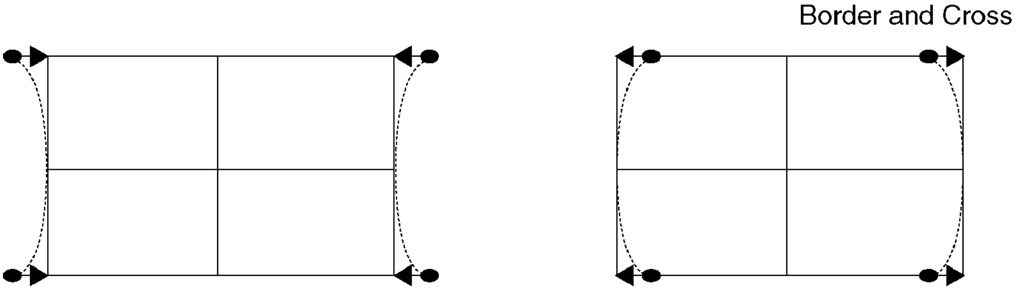


Fig.E : H-PIN

10.3.1.7. "G-CORNER" adjustment

Push the "TV/AV" buttons, and select the "G-CORNER".Push the "Volume up/down" buttons, and adjust the "G-CORNER" to become the following figure.

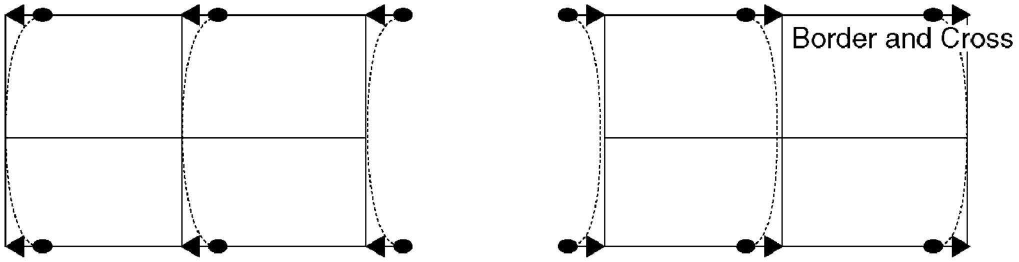


Fig.F : CORNER

10.3.1.8. "G-KEY" adjustment

Push the "TV/AV" buttons, and select the "G-KEY".Push the "Channel up/down" buttons, and adjust the "G-KEY" refer to following figure.

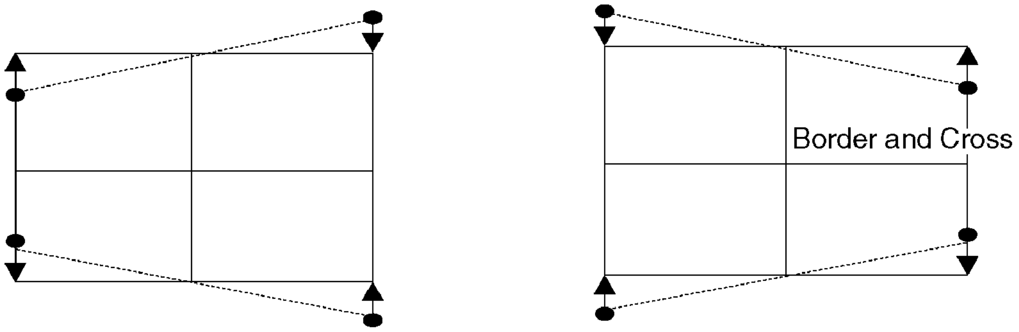


Fig.G : KEY

10.3.1.9. "G-STATIC" adjustment

Push the "TV/AV" buttons, and select the "G-STATIC".Push the "Channel/Volume up/down" buttons, and adjust "G-STATIC" so that Horizontal & Vertical center line is aligned with the bump in the screen center mark.

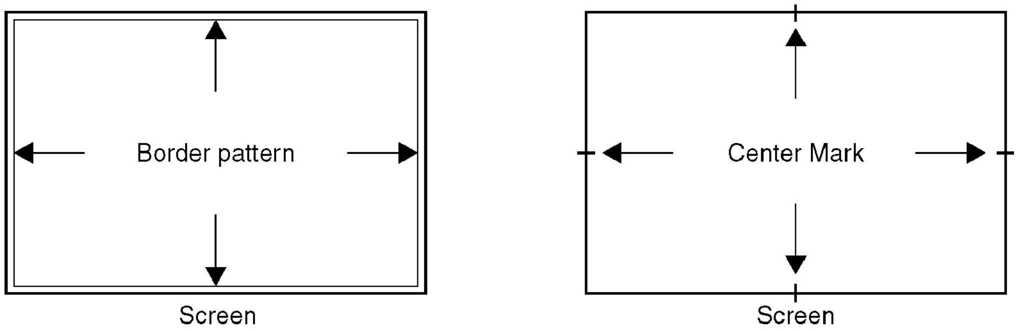


Fig.H STATIC

10.3.2. Red Coarse Convergence Adjustment

10.3.2.1. Reparation

Push the "SOUND" button, and select the Red Adjustment mode.Push the "2" button, and select the "Border and Cross" pattern.Push the "MUTE" button, and select the "Yellow" colour.Push the "POSITION" button, and adjust the "R-STATIC" so that the Redcolor of pattern is aligned with Green colour of pattern.

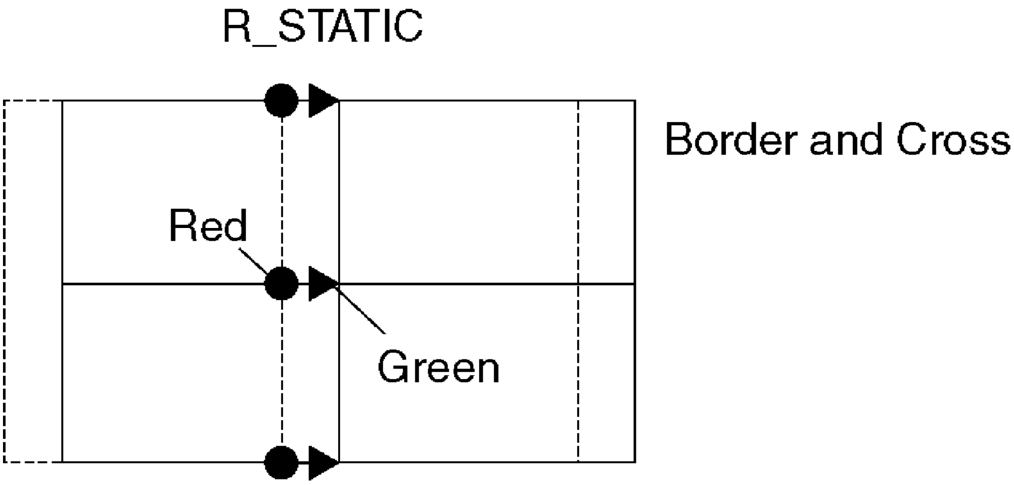


Fig.I : R-STATIC

10.3.2.2. "R-SKEW (V)" adjustment

Push the "TV/AV" buttons, and select the "R-SKEW".Push the "Volume up/down" buttons, and adjust the reference line become a vertical line. (Refer to figure.)

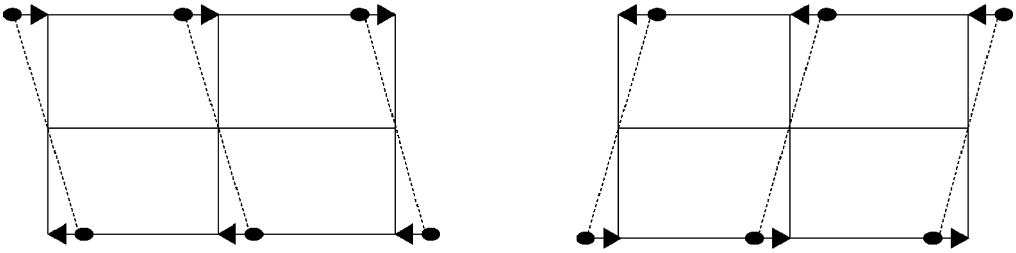


Fig.J : SKEW(V)

10.3.2.3. "R-SKEW (H)" adjustment

Push the "TV/AV" buttons, and select the "R-SKEW".Push the "Channel up/down" buttons, and adjust reference line become a horizontal line. (Refer to figure.)

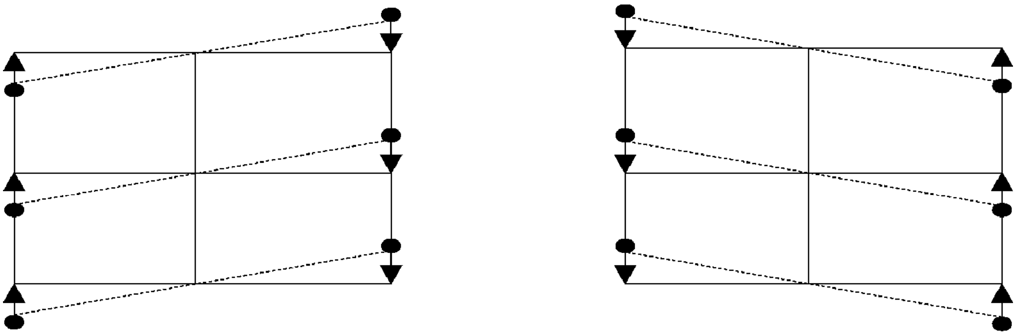


Fig.K : SKEW(H)

10.3.2.4. "R-SIZE (V)" adjustment

Push the "TV/AV" buttons, and select the "R-SIZE".Push the "Channel up/down" buttons, and adjust the upper and lower boarder line of test pattern is aligned with the edge of the screen frame. (Refer to Fig. A.)

10.3.2.5. "R-SIZE (H)" adjustment

Push the "TV/AV" buttons, and select the "R-SIZE".Push the "Volume up/down" buttons, and

adjust the boarder line on either side of test pattern is aligned with the edge of the screen frame. (Refer to Fig. B.)

10.3.2.6. "R-LINEAR" adjustment

Push the "TV/AV" buttons, and select the "R-LINEAR".Push the "Volume up/down" buttons, and adjust the "R-LINEAR". (Refer to Fig. C.)

10.3.2.7. "R-PIN (V)" adjustment

Push the "TV/AV" buttons, and select the "R-PIN".Push the "Channel up/down" buttons, and adjust the "R-PIN (V)". (Refer to Fig. D.)

10.3.2.8. "R-PIN (H)" adjustment

Push the "TV/AV" buttons, and select the "R-PIN".Push the "Volume up/down" buttons, and adjust the "R-PIN (H)". (Refer to Fig. E.)

10.3.2.9. "R-CORNER" adjustment

Push the "TV/AV" buttons, and select the "R-CORNER".Push the "Channel up/down" buttons, and adjust the "R-CORNER". (Refer to Fig. F.)

10.3.2.10. "R-KEY" adjustment

Push the "TV/AV" buttons, and select the "R-KEY".Push the "Channel up/down" buttons, and adjust the "R-KEY". (Refer to Fig. G.)

10.3.2.11. "R-STATIC" adjustment

Push the "TV/AV" buttons, and select the "R-STATIC.Push the "Channel/Volume up/down" buttons, and adjust "R-STATIC" so that Horizontal & Vertical Center line is aligned with the bump in the screen center mark.(Refer to Fig. H.)

10.3.3. Blue Coarse Convergence Adjustment

10.3.3.1. Reparation

Push the "SOUND" button, and select the Blue Adjustment mode.Push the "2" button, and select the "Border and Cross" pattern.Push the "MUTE" button, and select the "Cyan" colour.Push the "POSITION" button, and adjust the "B-STATIC" so that the Bluecolor of pattern is aligned with Green colour of pattern.

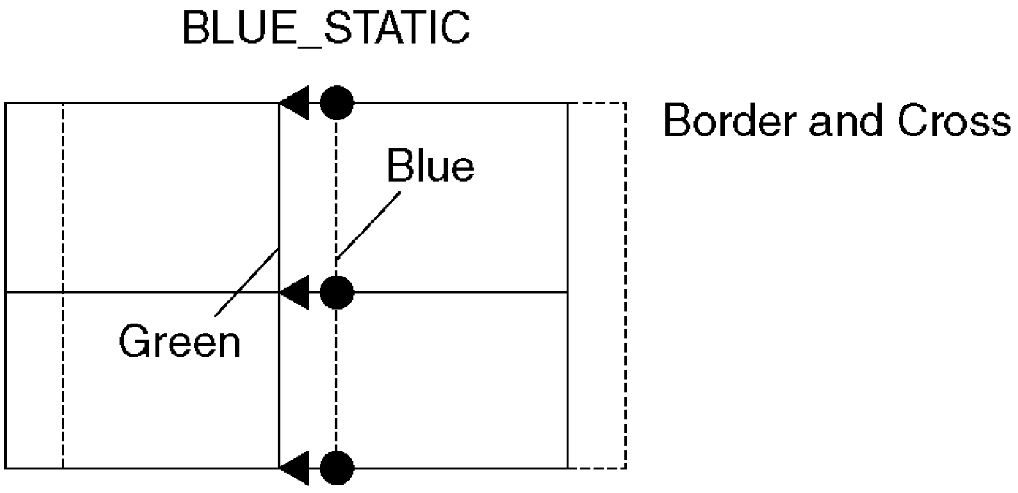


Fig.L : B-STATIC

10.3.3.2. "B-SKEW (V)" adjustment

Push the "TV/AV" buttons, and select the "B-SKEW".Push the "Volume up/down" buttons, and adjust the reference line become a vertical line. (Refer to Fig. J.)

10.3.3.3. "B-SKEW (H)" adjustment

Push the "TV/AV" buttons, and select the "B-SKEW".Push the "Channel up/down" buttons, and adjust reference line become a horizontal line. (Refer to Fig.K.)

10.3.3.4. "B-SIZE (V)" adjustment

Push the "TV/AV" buttons, and select the "B-SIZE".Push the "Channel up/down" buttons, and adjust the upper and lower boarder line of test pattern is aligned with the edge of the screen frame. (Refer to Fig. A.)

10.3.3.5. "B-SIZE (H)" adjustment

Push the "TV/AV" buttons, and select the "B-SIZE".Push the "Volume up/down" buttons, and adjust the boarder line on either side of test pattern is aligned with the edge of the screen frame. (Refer to Fig. B.)

10.3.3.6. "B-LINEAR" adjustment

Push the "TV/AV" buttons, and select the "B-LINEAR".Push the "Volume up/down" buttons, and adjust the "B-LINEAR". (Refer to Fig. C.)

10.3.3.7. "B-PIN (V)" adjustment

Push the "TV/AV" buttons, and select the "B-PIN".Push the "Channel up/down" buttons, and adjust the "B-PIN (V)" (Refer to Fig. D.)

10.3.3.8. "B-PIN (H)" adjustment

Push the "TV/AV" buttons, and select the "B-PIN".Push the "Volume up/down" buttons, and adjust the "B-PIN (H)". (Refer to Fig. E.)

10.3.3.9. "B-CORNER" adjustment

Push the "TV/AV" buttons, and select the "B-CORNER".Push the "Channel up/down" buttons, and adjust the "B-CORNER". (Refer to Fig. F.)

10.3.3.10. "B-KEY" adjustment

Push the "TV/AV" buttons, and select the "B-KEY".Push the "Channel up/down" buttons, and adjust the "B-KEY". (Refer to Fig. G.)

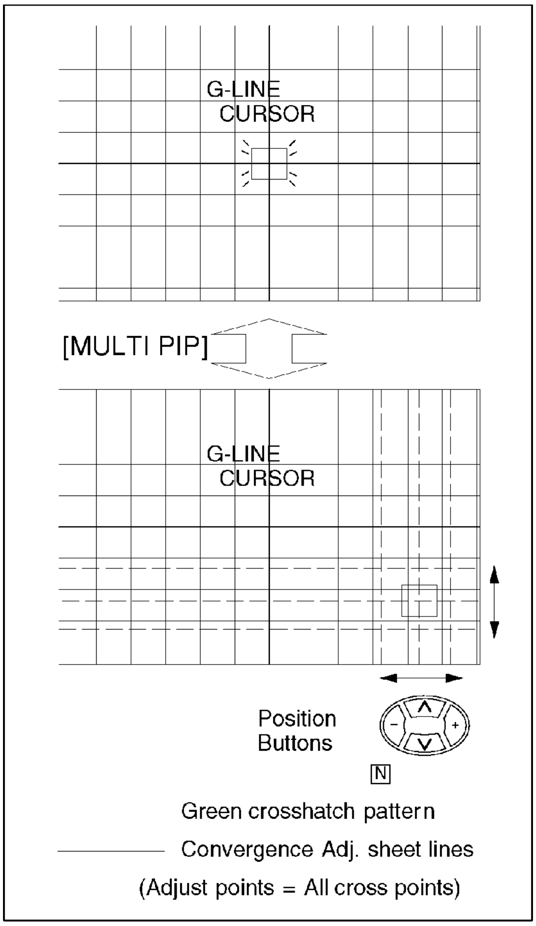
10.3.3.11. "B-STATIC" adjustment

Push the "TV/AV" buttons, and select the "B-STATIC.Push the "Channel/Volume up/down" buttons, and adjust "B-STATIC" so that Horizontal & Vertical Center line is aligned with the bump in the screen center mark.(Refer to Fig. H.)

10.4. Fine Convergence Adjustment

10.4.1. Green Convergence Adjustment

1. **Select the "G-LINE CURSOR" mode by pushing "TV/AV" button on the remote control**

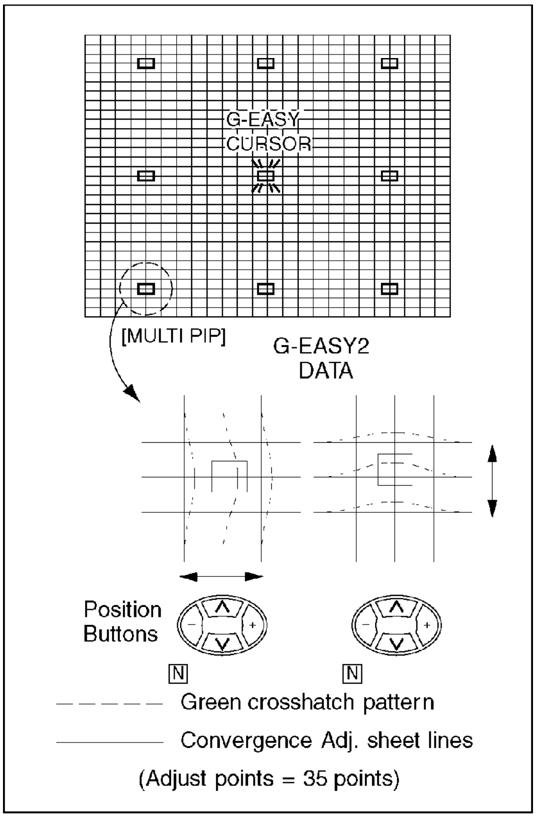

G-LINE CURSOR
[MULTI PIP]
G-LINE CURSOR
Position Buttons
N
Green crosshatch pattern
Convergence Adj. sheet lines
(Adjust points = All cross points)

2. **Use the Position Buttons to move the cursor to the point where you wish to change the data (adjustment lines). Then use the "MULTI PIP" to change from "G-LINE CURSOR" to "G-LINE DATA".**
3. **Use the Position Buttons to adjust each point (line) so that the Green Crosshatch Pattern is aligned with the vertical and horizontal lines of the Convergence Adjustment Sheet.**
4. **Push the "MULTI PIP" and switch from "G-LINE DATA" to "G-LINE CURSOR".**
5. **Repeat step 21~23 to adjust the vertical lines (13) and the horizontal lines (9).**
6. **Select the "G-EASY CURSOR" mode by pushing "TV/AV" button on the remote control.**
7. **Use the Position Buttons to move the cursor to the point where you wish to change the data (adjustment point). Then use the "MULTI PIP" to change from "G-EASY CURSOR" to "G-EASY DATA".**

8. Use the Position Buttons to adjust each point so that the Green Crosshatch Pattern is aligned with the vertical and horizontal lines of the Convergence Adjustment Sheet.

9. Push the "MULTI PIP" and with from "G-EASY DATA" to "G-EASY CURSOR".

10. Repeat step 7~9 to adjust the 9 adjustment points.


G-EASY
CURSOR
[MULTI PIP]
G-EASY2
DATA
Position
Buttons
N
N
Green crosshatch pattern
Convergence Adj. sheet lines
(Adjust points = 35 points)

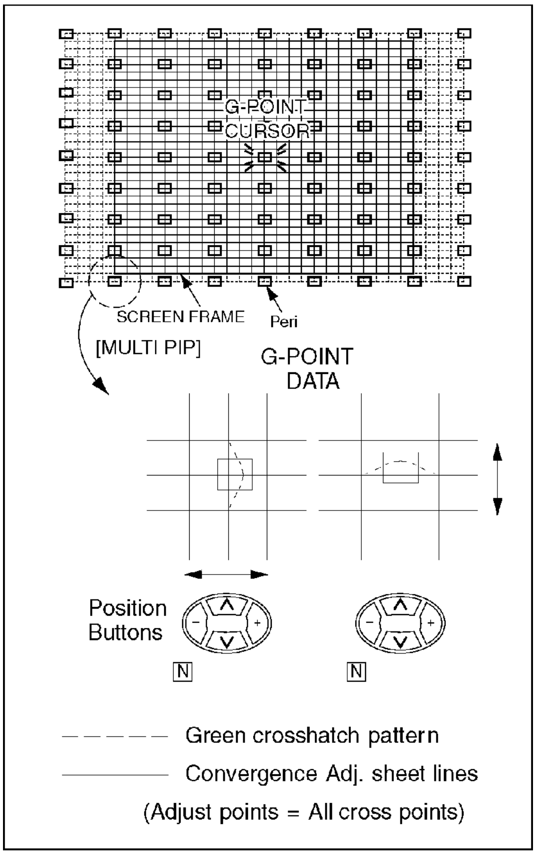
11. Select the "G-POINT CURSOR" mode by pushing "TV/AV" button on the remote control.

12. Use the Position Buttons to move the cursor to the point where you wish to change the data (adjustment lines). Then use the "MULTI PIP" to change from "G-LINE CURSOR" to "G-LINE DATA".

13. Use the Position Buttons to adjust each point so that the Green Crosshatch Pattern is aligned with the vertical and horizontal lines of the Convergence Adjustment Sheet.

14. Push the "MULTI PIP" and switch from "G-POINT DATA" to "G-POINT CURSOR".

15. Repeat step 12-14 to adjust all of adjustment points.


G-POINT
CURSOR
SCREEN FRAME
Peri
[MULTI PIP]
G-POINT
DATA
Position
Buttons
N
N
Green crosshatch pattern
Convergence Adj. sheet lines
(Adjust points = All cross points)

16. Adjust the LINE, EASY and POINT DATA again viewing all over the screen.
    If need the adjustment at the around of screen, select the "ORIGINAL" and adjust it.

17. To store the data after the Green Convergence Adjustment has been completed, push the "MAIN MENU" button and then push the "N" button (pushing the "N" button will store the data in the E_2 PROM).

18. Remove the Convergence Adjustment Sheet from the screen.

10.4.2. Red Convergence Adjustment

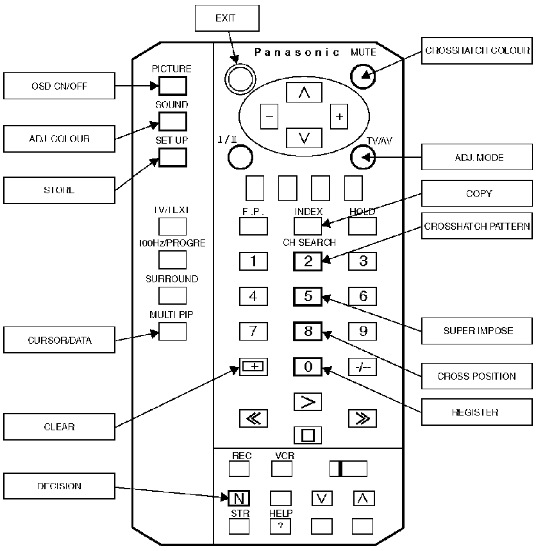
1. Push the "MUTE" button twice and change to the Red Adjustment of Yellow Colour.

2. Repeat the same steps described for the Green Conv.Adj. in 1~16 to perform the Red Convergence Adjustment.

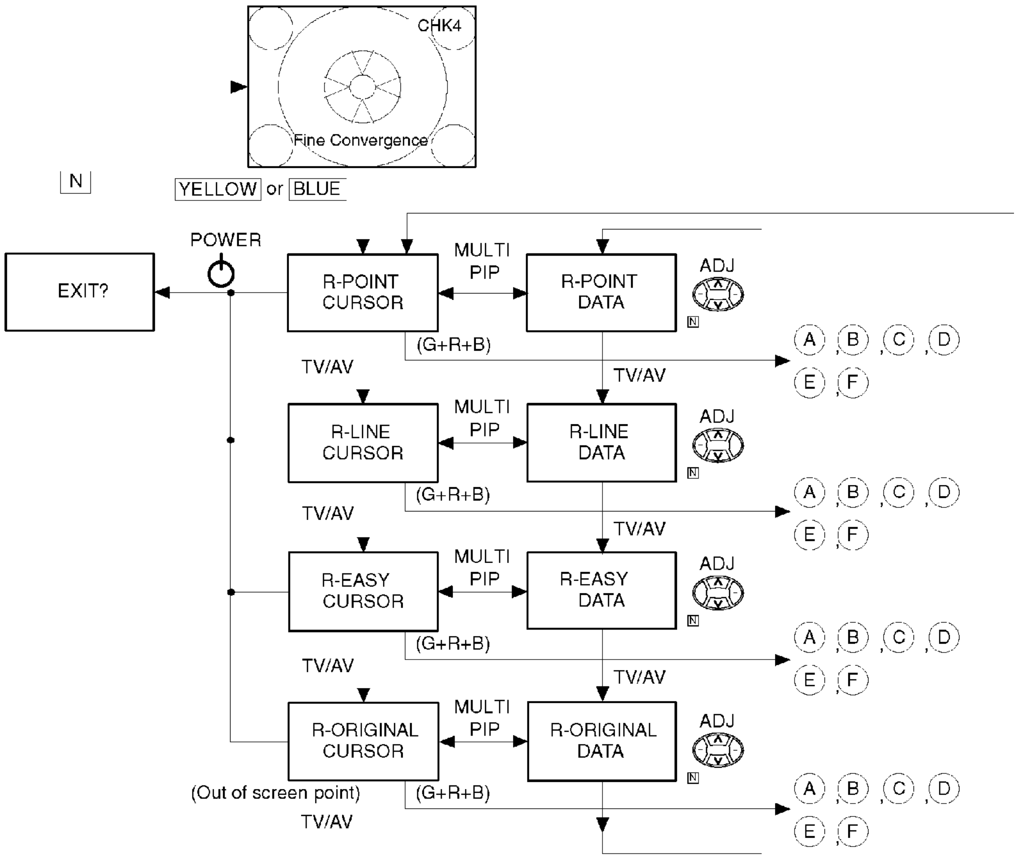
3. To store the data after the Red Convergence Adjustment has been completed, push the "MAIN MENU" button and then the "N" button.

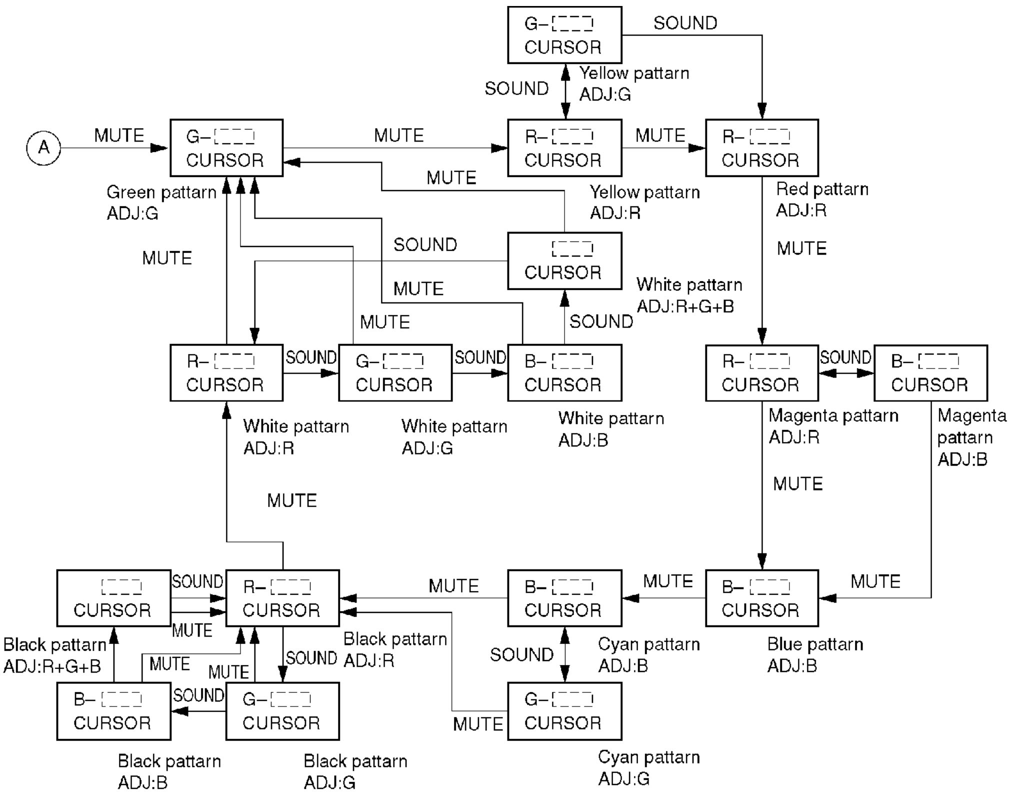
10.4.3. Blue Convergence Adjustment

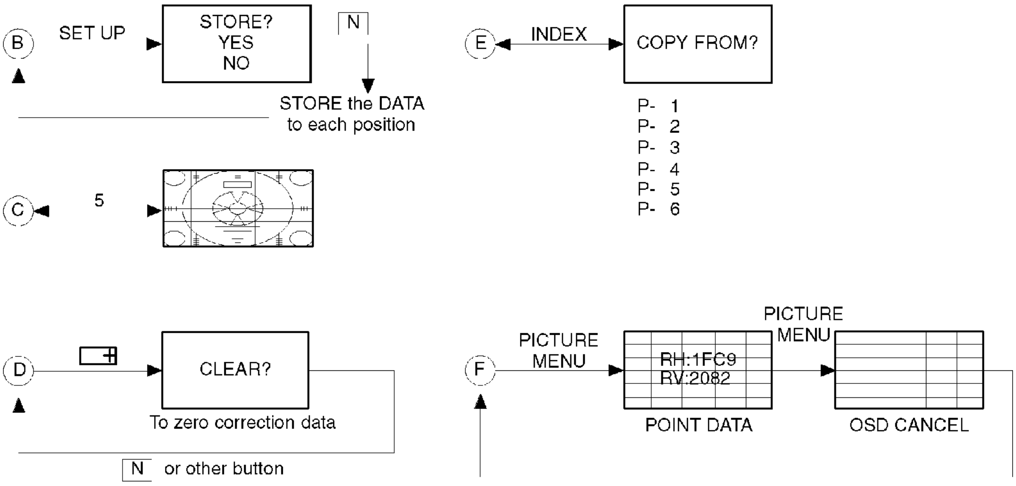
1. **Push the "MUTE" button twice and change to the Blue Adjustment of cyan Colour.**
2. **Repeat the same steps described for the Green Conv.Adj. in 1~16 to perform the Blue Convergence Adjustment.**
3. **To store the data after the Blue Convergence Adjustment has been completed, push the "MAIN MENU" button and then push the "N" button.**
4. **To switch from the Convergence Adjustment Mode to the Service Mode, press the Power button and then push the "N" button. Repeat the same adjustment after inputting the 60Hz (NTSC) signal.**


EXIT
Panasonic
MUTE
CROSSHATCH COLOUR
OSD ON/OFF
PICTURE
SOUND
ADJ COLOUR
SET UP
STORE
1/II
TV/AV
ADJ. MODE
COPY
TV/TEXT
F.P.
INDEX
HOLD
CROSSHATCH PATTERN
100Hz/PROGRE
CH SEARCH
1
2
3
SURROUND
4
5
6
MULTI PIP
SUPER IMPOSE
CURSOR/DATA
7
8
9
0
-/--
CROSS POSITION
REGISTER
CLEAR
REC
VCR
DECISION
N
STR
HELP
?

Fine Convergence Control Chart

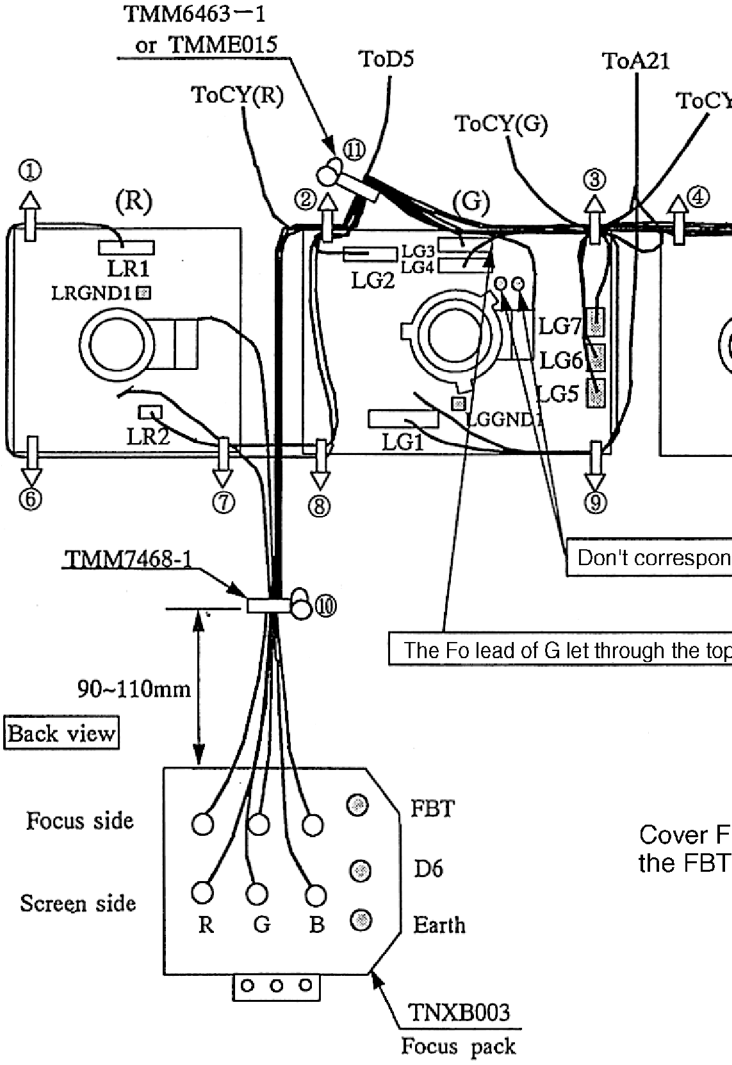

CHK4
Fine Convergence
N
YELLOW or BLUE
POWER
EXIT?
R-POINT CURSOR
MULTI PIP
R-POINT DATA
ADJ
(G+R+B)
TV/AV
A, B, C, D
E, F
R-LINE CURSOR
MULTI PIP
R-LINE DATA
ADJ
(G+R+B)
TV/AV
A, B, C, D
E, F
R-EASY CURSOR
MULTI PIP
R-EASY DATA
ADJ
(G+R+B)
TV/AV
A, B, C, D
E, F
R-ORIGINAL CURSOR
MULTI PIP
R-ORIGINAL DATA
ADJ
(Out of screen point)
(G+R+B)
TV/AV
A, B, C, D
E, F


A
MUTE
G– CURSOR
Green pattern ADJ:G
G– CURSOR
SOUND
Yellow pattern ADJ:G
SOUND
R– CURSOR
Yellow pattern ADJ:R
MUTE
R– CURSOR
Red pattern ADJ:R
MUTE
SOUND
CURSOR
White pattern ADJ:R+G+B
SOUND
MUTE
MUTE
R– CURSOR
White pattern ADJ:R
SOUND
G– CURSOR
White pattern ADJ:G
SOUND
B– CURSOR
White pattern ADJ:B
R– CURSOR
Magenta pattern ADJ:R
SOUND
B– CURSOR
Magenta pattern ADJ:B
MUTE
MUTE
CURSOR
Black pattern ADJ:R+G+B
SOUND
MUTE
R– CURSOR
Black pattern ADJ:R
SOUND
MUTE
B– CURSOR
Black pattern ADJ:B
SOUND
G– CURSOR
Black pattern ADJ:G
MUTE
B– CURSOR
Cyan pattern ADJ:B
SOUND
G– CURSOR
Cyan pattern ADJ:G
MUTE
B– CURSOR
Blue pattern ADJ:B
MUTE


B
SET UP
STORE?
YES
NO
N
STORE the DATA
to each position
C
5
D
CLEAR?
To zero correction data
N
or other button
E
INDEX
COPY FROM?
P- 1
P- 2
P- 3
P- 4
P- 5
P- 6
F
PICTURE
MENU
RH:1FC9
RV:2082
POINT DATA
PICTURE
MENU
OSD CANCEL

11. Location of Lead Wiring

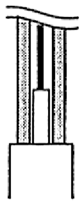
11.1. Location of Lead Wiring (1)


TMM6463−1
or TMME015
ToD5
ToA21
ToCY(R)
ToCY(B)
ToCY(G)
⑪
①
(R)
②
(G)
③
④
(B)
⑤
LR1
LRGND1
LG3
LG4
LG2
LB1
LBGND1
LG7
LG6
LG5
LGGND1
LG1
LR2
LB2
⑥
⑦
⑧
⑨
TMM7468-1
⑩
90~110mm
Back view
Focus side
Screen side
R
G
B
FBT
D6
Earth
TNXB003
Focus pack

Don't correspond to C932,C952.

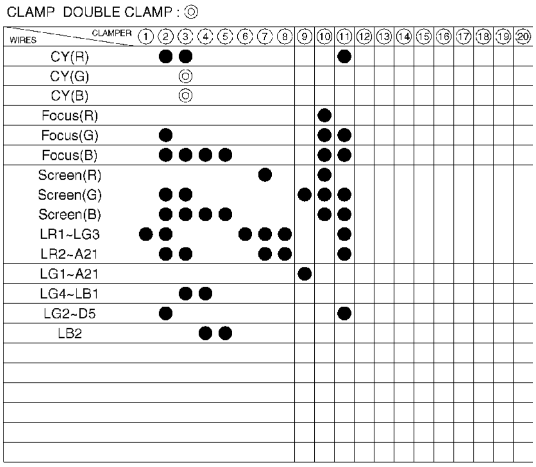
The Fo lead of G let through the top of LG3,the LG4 lead.

Cover FBT (white) tube to the FBT coupler tube.



(Attention)
The lead line doesn't come within 5 millimeters of the neighborhood of the focus block,too.

INSERTION OF CONNECTOR
LR1, LR2, LG1, LG2, LG3, LG4, LG5, LG6, LG7, LB1, LB2,
LRGND1, LGGND1, LBGND1



CLAMP DOUBLE CLAMP : ◎

WIRES \ CLAMPER	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳
CY(R)		●	●								●									
CY(G)			◎																	
CY(B)			◎																	
Focus(R)										●										
Focus(G)		●								●	●									
Focus(B)		●	●	●	●					●	●									
Screen(R)							●			●										
Screen(G)		●	●						●	●	●									
Screen(B)		●	●	●	●					●	●									
LR1~LG3	●	●				●	●	●			●									
LR2~A21		●	●				●	●			●									
LG1~A21									●											
LG4~LB1			●	●																
LG2~D5		●									●									
LB2				●	●															

NOTICE FOR WORE DRESSING

1. **Confirm that the lead line isn’t hitting the metallic part of the neck print after CRT neck print (R, G, B) insertion.**
2. **It decides to be permitted to insert the lead line (R, G, B) of the VM coil wherever of LG5, LG6, LG7 of the LG print.**
3. **It decides to be permitted to insert G, B of the DY lead in either.**

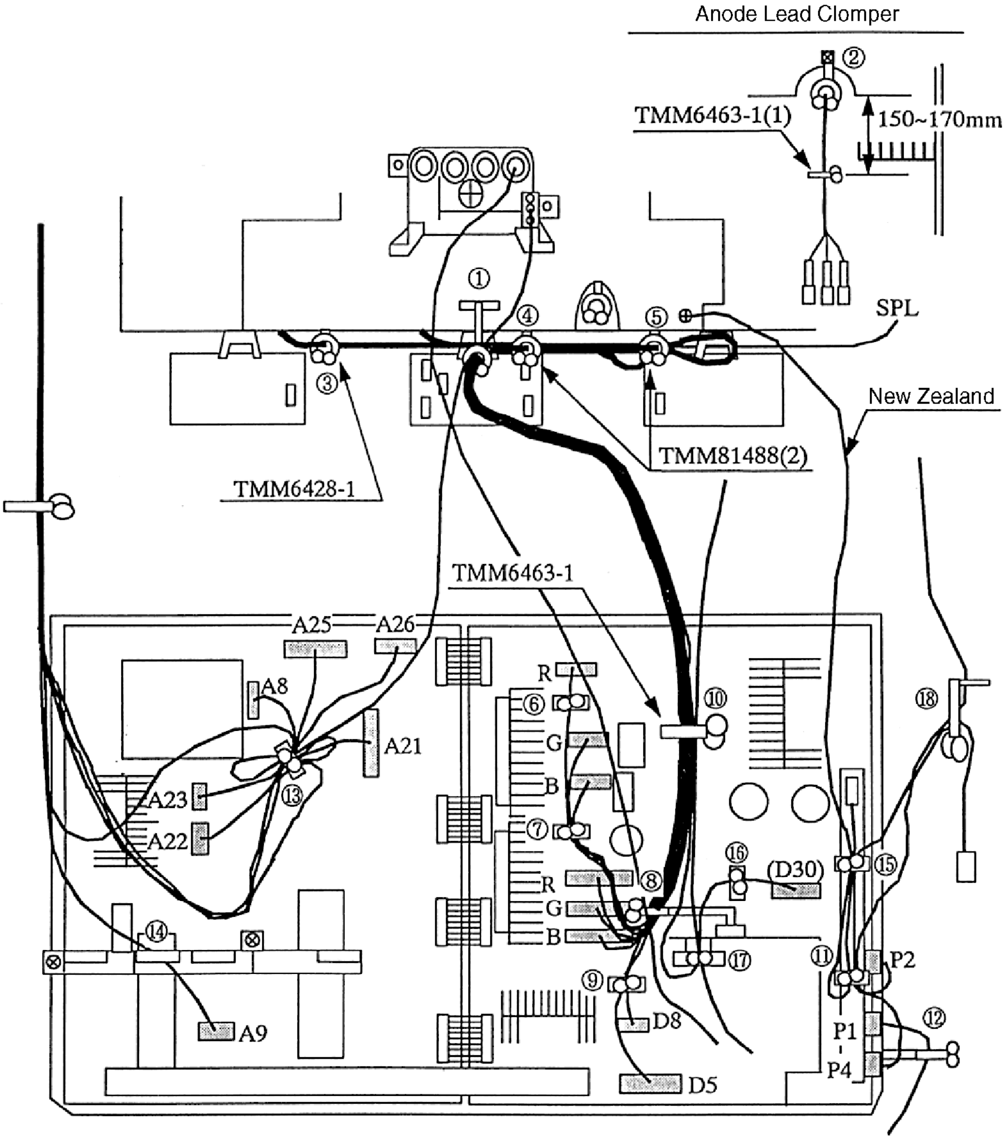
11.2. Location of Lead Wiring (2)

The Anode Lead

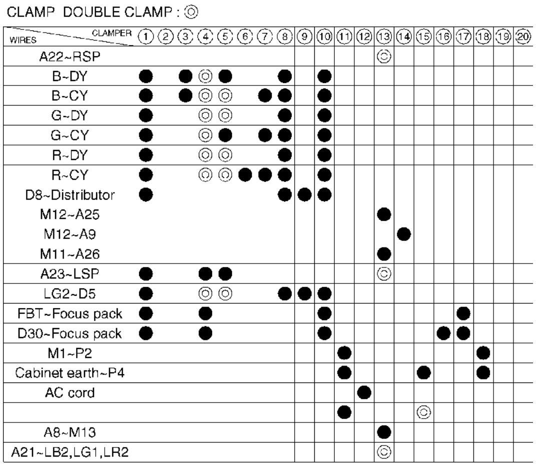
1. **It inserts Anode lead tip in the back to FBT (the fly background transformer), and it makes turn on the right and it locks it. (Three insertion positions are free).**
2. **Secure a safe space distance from the circumference part by equal to or more than 10 millimeters.**

Attention

1. **There is not sagging in Clamper ⑲-the D30 coupler pipe.**
2. **Drink a lead between P Prix metal fittings-the optical metal fittings in the New Zealand turning and use it.**


Anode Lead Clomper
②
TMM6463-1(1)
150~170mm
①
④
⑤
SPL
③
New Zealand
TMM81488(2)
TMM6428-1
TMM6463-1
A25
A26
A8
A21
A23
A22
⑬
R
⑥
G
B
⑦
R
G
B
⑩
⑧
⑯
(D30)
⑮
⑱
⑰
⑪
P2
⑫
P1
P4
⑭
A9
⑨
D8
D5

INSERTION OF CONNECTOR
A9, A21, A22, A23, A25, A26, Anode distributor (R, G, B, FBT), D5,
DY (R, G, B), CY (R, G, B),
D30, P1, P2, P4, Focus pack (Red)



CLAMP DOUBLE CLAMP : ◎

WIRES \ CLAMPER	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳
A22~RSP													◎							
B~DY	●		●	◎	●			●		●										
B~CY	●		●	◎	◎		●	●		●										
G~DY	●			◎	◎			●		●										
G~CY	●			◎	●		●	●		●										
R~DY	●			◎	◎			●		●										
R~CY	●			◎	◎	●	●	●		●										
D8~Distributor	●							●	●	●										
M12~A25													●							
M12~A9														●						
M11~A26													●							
A23~LSP	●			●	●								◎							
LG2~D5	●			◎	◎			●	●	●										
FBT~Focus pack	●			●						●							●			
D30~Focus pack	●			●						●						●	●			
M1~P2											●							●		
Cabinet earth~P4											●				●			●		
AC cord												●								
											●				◎					
A8~M13													●							
A21~LB2,LG1,LR2													◎							

NOTICE FOR WIRE DRESSING

1. After insert R, G, B on CRT-print, confirm that wire should not touch to material parts of CRT-print.

12. Conductor Views

12.1. A-Board

12.2. D-Board

12.3. DG-Board

12.4. H-Board

12.5. LB-Board and LR-Board

12.6. LG-Board and M-Board

12.7. P-Board

12.8. U-Board

13. Block Diagram

13.1. Audio Block Diagram

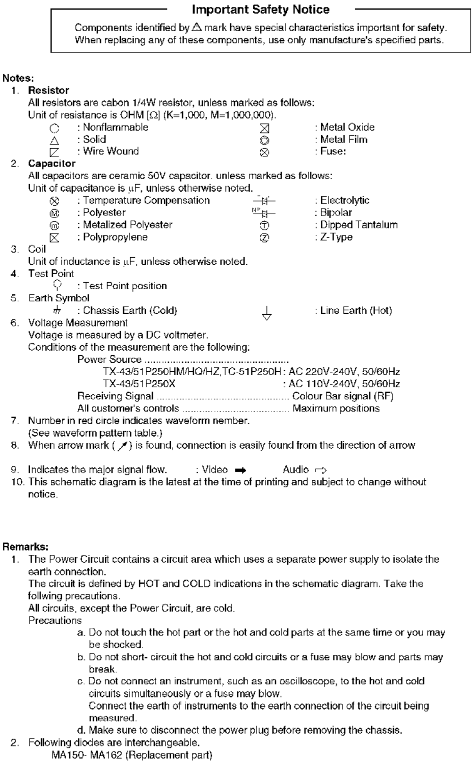
13.2. Video Block Diagram

13.3. Power Block Diagram

13.4. Control Block Diagram

14. Schematic Diagram

14.1. Schematic Diagram Notes



Important Safety Notice

Components identified by △ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

Notes:

1. **Resistor**
   All resistors are cabon 1/4W resistor, unless marked as follows:
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).

○	: Nonflammable	⊠	: Metal Oxide
△	: Solid	◎	: Metal Film
⧄	: Wire Wound	⊗	: Fuse:

2. **Capacitor**
   All capacitors are ceramic 50V capacitor. unless marked as follows:
   Unit of capacitance is µF, unless otherwise noted.

⊗	: Temperature Compensation	⊣⊢	: Electrolytic
Ⓜ	: Polyester	NP ⊣⊢	: Bipolar
ⓜ	: Metalized Polyester	Ⓣ	: Dipped Tantalum
⊠	: Polypropylene	Ⓩ	: Z-Type

3. Coil
   Unit of inductance is µF, unless otherwise noted.
4. Test Point
   ⚲ : Test Point position
5. Earth Symbol
   ⏚ : Chassis Earth (Cold) ⏚ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source ....
   TX-43/51P250HM/HQ/HZ,TC-51P250H : AC 220V-240V, 50/60Hz
   TX-43/51P250X : AC 110V-240V, 50/60Hz
   Receiving Signal .... Colour Bar signal (RF)
   All customer's controls .... Maximum positions
7. Number in red circle indicates waveform nember.
   (See waveform pattern table.)
8. When arrow mark (↗) is found, connection is easily found from the direction of arrow

9. Indicates the major signal flow. : Video ➡ Audio ⇨
10. This schematic diagram is the latest at the time of printing and subject to change without notice.

Remarks:

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
   Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.
2. Following diodes are interchangeable.
   MA150- MA162 (Replacement part)

14.2. A-Board (1 of 4) Schematic Diagram

14.3. A-Board (2 of 4) Schematic Diagram

14.4. A-Board (3 of 4) Schematic Diagram

14.5. A-Board (4 of 4) Schematic Diagram

14.6. D-Board (1 of 2) Schematic Diagram

14.7. D-Board (2 of 2) Schematic Diagram

14.8. DG-Board (1 of 2) Schematic Diagram

14.9. DG-Board (2 of 2) Schematic Diagram

14.10. H-Board Schematic Diagram

14.11. LG-Board Schematic Diagram

14.12. LB and LR-Board Schematic Diagram

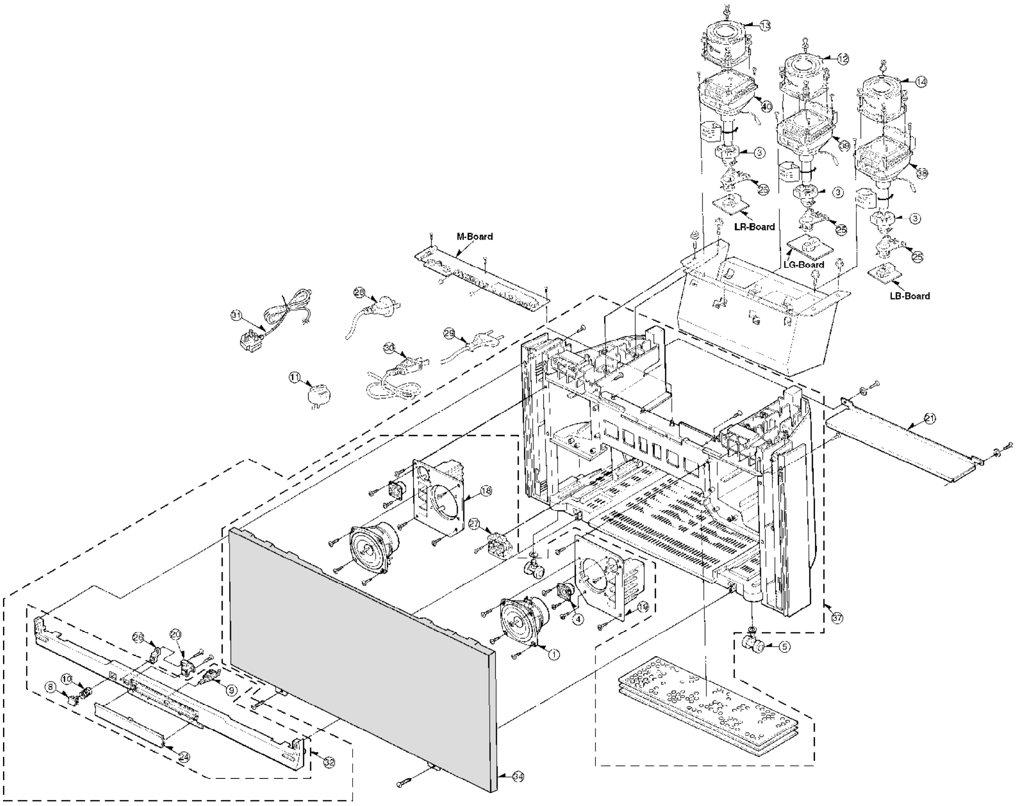
14.13. M-Board Schematic Diagram

14.14. P-Board Schematic Diagram

14.15. U-Board Schematic Diagram

15. Parts location

Note:
The number on mechanical parts indicates Ref. No.
Mechanical Replacement Parts List


13
12
14
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39
38
3
3
3
25
25
25
LR-Board
LG-Board
LB-Board
M-Board
31
28
29
30
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27
19
4
1
37
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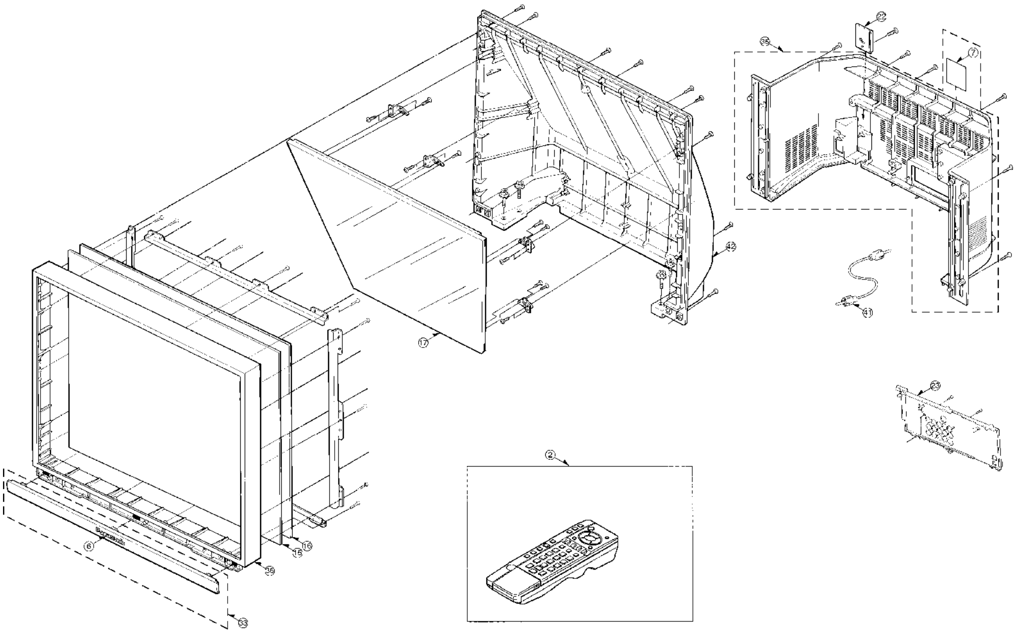
26
20
10
8
9
24
32
34



16. Mechanical Replacement Parts List

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	EAS14P125A0	SPEAKER	2	43 INCH MODELS
1	L0AA13A00001	SPEAKER(WOOFER)	2	51 INCH MODELS
2	EUR511250	REMOTE CONTROLLER	1	TX-43/51P250HM/HQ/HZ/X
2	EUR511251	REMOTE CONTROLLER	1	TC-43/51P250H
3	G0F100000004	DEFLECTION YOKE	3	⚠
	KFT7CP336F	HIGH VOLTAGE DIVISION	1	⚠
4	EAST6PH12A6	SPEAKER (TWEETER)	2	51 INCH MODELS
5	TBLB0010	CASTER	4	
6	TBMA071	PANASONIC BADGE	1	
7	TBME401	MODEL NAME PLATE	1	TX-51P250HM ⚠
7	TBME406	MODEL NAME PLATE	1	TX-43P250HM ⚠
7	TBME408	MODEL NAME PLATE	1	TX-51P250HQ/HZ ⚠
7	TBME410	MODEL NAME PLATE	1	TX-51P250X ⚠
7	TBME411	MODEL NAME PLATE	1	TC-51P250H ⚠
7	TBME412	MODEL NAME PLATE	1	TX-43P250HQ/HZ ⚠
7	TBME414	MODEL NAME PLATE	1	TX-43P250X ⚠
7	TBME415	MODEL NAME PLATE	1	TC-43P250H ⚠
8	TBXA33501	POWER BUTTON	1	43 INCH MODELS
8	TBXA33502	POWER BUTTON	1	51 INCH MODELS
9	TEK6940	DOOR SWITCH	1	
	TEKC011	DAMPER	1	
	TES6583	SPRING FOR TR	2	
10	TESA031	SPRING	1	
	THT1062	SCREW	6	
	THTA006Z	SCREW	33	
11	TJS2A8420	AC ADAPTOR	1	TX-43/51P250X
12	TKGF0007	LENS (G)	1	51 INCH MODELS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
13	TKGF0013	LENS (R)	1	51 INCH MODELS
14	TKGF0014	LENS (B)	1	51 INCH MODELS
13	TKGF0024	LENS (R)	1	43 INCH MODELS
12	TKGF0025	LENS (G)	1	43 INCH MODELS
14	TKGF0026	LENS (B)	1	43 INCH MODELS
15	TKGH5052	SCREEN (L)	1	51 INCH MODELS
16	TKGH5053	SCREEN (F)	1	51 INCH MODELS
15	TKGH5055	SCREEN (L)	1	43 INCH MODELS
16	TKGH5056	SCREEN (F)	1	43 INCH MODELS
17	TKGJ5019-1	MIRROR	1	51 INCH MODELS
17	TKGJ5020	MIRROR	1	43 INCH MODELS
18	TKJC005	SPEAKER BORAD (LEFT)	1	43 INCH MODELS
19	TKJC006	SPEAKER BORAD (RGHIT)	1	43 INCH MODELS
18	TKJC007	SPEAKER BORAD (LEFT)	1	51 INCH MODELS
19	TKJC008	SPEAKER BORAD (RGHIT)	1	51 INCH MODELS
20	TKKC5126	REMOCON RECEIVER PANEL	1	
21	TKKF5046-1	COVER	1	
	TKKH5061	COVER	2	
22	TKKL5088	AC CORD COVER	1	
23	TKP0AA4301	REAR TERMINAL BOARD	1	
24	TKPA55402	FRONT DOOR	1	
25	TLHX015	R/G/B COIL	3	
	TMK15943	INSULATOR	1	
	TMK15945	INSULATOR	1	
	TMM14444	CLAMPER	1	
	TMM16452	CLAMPER	6	
	TMM16452	CLAMPER	1	
	TMM16473-1	CLAMPER	4	
	TMM16473-1	CLAMPER	1	
	TMM16480-1	CLAMPER	1	
	TMM16480-1	CLAMPER	2	
	TMM16497-1	CLAMPER	8	
	TMM3565	RUBBER CAP	4	
	TMM6463-1	CLAMPER	6	
	TMM7464-2	CLAMPER	4	
	TMM7468-1	CLAMPER	1	
	TMM76403-1	CLAMPER	1	51 INCH MODELS
	TMM76430-1	CLAMPER	2	
	TMME047	CLAMPER	1	
	TMMX016	CLAMPER	1	
	TMMX027-2	HOLDER	1	
	TMW0A706-1	PC SUPORT	1	
26	TMWJ017	LED HOLDER	1	
27	TNXB003	FOCUS VR BLOCK	1	D9ZZ00000075 ⚠
	TPCA79412	CARTON BOX	1	TX-51P250HM
	TPCA79413	CARTON BOX	1	TX-51P250HQ
	TPCA79414	CARTON BOX	1	TX-51P250HZ
	TPCA79415	CARTON BOX	1	TX-51P250X
	TPCA79416	CARTON BOX	1	TC-51P250H
	TPCA79501	BOTTOM CARTON	1	51 INCH MODELS
	TPCA87506	CARTON BOX	1	TX-43P250HM
	TPCA87507	CARTON BOX	1	TX-43P250HQ
	TPCA87508	CARTON BOX	1	TX-43P250HZ
	TPCA87509	CARTON BOX	1	TX-43P250X

	[illegible]	CARTON BOX	1	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	TPCA87510	CARTON BOX	1	TC-43P250H
	TPCA87601	CARTON BOX(BOTTOM)	1	43 INCH MODELS
	TPD169487	JOINT	4	
	TPD169564	JOINT	2	
	TPDA0359-1	CUSHION(UPPER)	1	51 INCH MODELS
	TPDA0360-1	CUSHION(BOTTOM)	1	51 INCH MODELS
	TPDA0361	CUSHION (TOP)	1	51 INCH MODELS
	TPDA0362-1	CUSHION (FRONT)	1	51 INCH MODELS
	TPDA0363-1	CUSHION (REAR)	1	51 INCH MODELS
	TPDA0389	CUSHION(UPPER)	1	43 INCH MODELS
	TPDA0390	CUSHION(BOTTOM)	1	43 INCH MODELS
	TPDA0391	CUSHION(FRONT)	1	43 INCH MODELS
	TPDA0392	CUSHION(REAR)	1	43 INCH MODELS
	TPDF0199	CUSHION	2	51 INCH MODELS
	TPDF0416	CUSHION (TOP)	1	51 INCH MODELS
	TPDF0451	CUSHION(TOP)	1	43 INCH MODELS
	TPDF0844	CUSHION	2	43 INCH MODELS
	TPEH090	PROTECT COVER	1	
	TPEH132-1	SET COVER	1	
	TQBC0279-1	INSTRUCTION BOOK(ENGLISH)	1	
	TQBC0280	INSTRUCTION BOOK(CHINA)	1	
	TQBC0281-1	INSTRUCTION BOOK(ARABIC)	1	
28	TSX1495	AC POWER CORD	1	TX-43/51P250HQ/HZ ⚠
29	TSX5132-2	AC POWER CORD	1	TX-43/51P250HM ⚠
30	TSX5134-3	AC POWER CORD	1	TX-43/51P250X ⚠
31	TSXA106	AC POWER CORD	1	TC-43/51P250H ⚠
32	TTPA0209	CONTROL PANEL	1	51 INCH MODELS
33	TTPA0210	ORNAMENT PANEL	1	TX-51P250HM/HQ/HZ
34	TTPA0211	SPEAKER GRILLE	1	51 INCH MODELS
32	TTPA0212	CONTROL PANEL	1	43 INCH MODELS
33	TTPA0213	ORNAMENT PANEL	1	TX-43P250HM/HQ/HZ
34	TTPA0214	SPEAKER GRILL	1	43 INCH MODELS
33	TTPA0217	ORNAMENT PANEL	1	TX-51P250X
33	TTPA0218	ORNAMENT PANEL	1	TC-51P250H
33	TTPA0222	ORNAMENT PANEL	1	TX-43P250X
33	TTPA0223	ORNAMENT PANEL	1	TC-43P250H
42	TTUA0342-1	REAR COVER(TOP)	1	51 INCH MODELS
42	TTUA0358	REAR COVER (TOP)	1	43 INCH MODELS
35	TTUA0452	REAR COVER(BOTTOM)	1	TX-51P250HM
35	TTUA0453	REAR COVER (BOTTOM)	1	TX-43P250HM
35	TTUA0454	REAR COVER(BOTTOM)	1	TX-51P250HQ/HZ
35	TTUA0456	REAR COVER(BOTTOM)	1	TX-51P250X
35	TTUA0457	REAR COVER(BOTTOM)	1	TC-51P250H
35	TTUA0458	REAR COVER (BOTTOM)	1	TX-43P250HQ/HZ
35	TTUA0460	REAR COVER (BOTTOM)	1	TX-43P250X
35	TTUA0461	REAR COVER (BOTTOM)	1	TC-43P250H
36	TTYA0368	CABINET (TOP)	1	51 INCH MODELS
36	TTYA0394	CABINET (TOP)	1	43 INCH MODELS
37	TTYA0479	CABINET (BOTTOM)	1	51 INCH MODELS
37	TTYA0481	CABINET (BOTTOM)	1	43 INCH MODELS
	TUA0A0500-1	CHASSIS FRAME	1	
38	TVVAB10GAV	PICTURE TUBE (B)	1	51 INCH MODELS
38	TVVAB10GLV	PICTURE TUBE (B)	1	43 INCH MODELS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
39	TVVAG10GAV	PICTURE TUBE (G)	1	51 INCH MODELS
39	TVVAG10GLV	PICTURE TUBE (G)	1	43 INCH MODELS
40	TVVAR10GAV	PICTURE TUBE (R)	1	51 INCH MODELS
40	TVVAR10GLV	PICTURE TUBE (R)	1	43 INCH MODELS
41	TXAJS02ZEH	IF CABLE	1	
	XTB4+10J	SCREW	11	
	XTB4+12A	SCREW	3	
	XTB4+15A	SCREW	6	
	XTBT964	SCREW	35	
	XTV3+10J	SCREW	8	
	XTV3+12A	SCREW	8	
	XTV3+12G	SCREW	5	
	XTV3+12GFZ	SCREW	3	
	XTV3+6J	SCREW	2	
	XTW3+10T	SCREW	30	
	XTW3+8T	SCREW	2	
	XTW4+Z15D	SCREW	6	
	XWC8B	WASHER	1	
	XYN3+C8	SCREW	1	
	XYN3+F10	SCREW	2	
	XYN3+F12	SCREW	2	
	XYN3+F16	SCREW	4	
	XYN3+F8	SCREW	1	
	XYN3+J8	SCREW	20	
	XYN4+F14	SCREW	12	
	XYN5+F16	SCREW	12	
	XZBT6506	POLY BAG	1	

17. Electrical Replacement Parts List

17.1. Replacement Parts List Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.
After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
After the end of this period, the assembly will no longer be available.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

Type Allowance

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V

Type Allowance

Type	Allowance
C : Carbon	F : ±1%
F : Fuse	G : ±2%
M : Metal Oxide	J : ±5%
Metal Film	K : ±10%
S : Solid	M : ±20%
W : Wire Wound	

Type	Allowance
C : Ceramic	C : ±0.25pF
E : Electrolytic	D : ±0.5pF
P : Polyester	F : ±1pF
Polyprop	G : ±3pF
lene	J : ±5pF
T : Tantalum	K : ±10pF
	L : ±15pF
	M : ±20pF
	P : +100%, -0%
	Z : +80%, -20%

17.2. Electrical Replacement Parts List

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	01	**CM NOTHING**	1	(RTL)
■	01	**CM NOTHING**	1	(RTL)
A1-A3	TJSF19916	16P CONNECTOR	3	K1KA16A00119
A4	TJS1A8150	9P CONNECTOR	1	K1KA09B00019
A5	TJS3A9640	3P CONNECTOR	1	K1KA03A00171
A6	TJSF19916	16P CONNECTOR	1	K1KA16A00119
A8	TJS3A9680	7P CONNECTOR	1	K1KA07A00095
A9	TJS3A9650	4P CONNECTOR	1	K1KA04A00194
A10,11	TJSF17325	25P CONNECTOR	2	K1KB25B00006
A17	TJS3A9640	3P CONNECTOR	1	K1KA03A00171
A21	TJS3A9910	11P CONNECTOR	1	K1KA11A00059
A22	TJS3A9640	3P CONNECTOR	1	K1KA03A00171 43 INCH MODEL
A22	TJS3A9660	5P CONNECTOR	1	K1KA05A00138 51 INCH MODEL
A23	TJS3A9650	4P CONNECTOR	1	K1KA04A00194
A25	TJS3A9880	8P CONNECTOR	1	K1KA08A00179
A26	TJS3A9660	5P CONNECTOR	1	K1KA05A00138
A31	TJS3A9640	3P CONNECTOR	1	K1KA03A00171
A44	TJSF57570	70P CONNECTOR	1	
A1101,02	K1KA30A00128	30P CONNECTOR	2	
C001	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C002	ECA1HM100	E 10UF, 50V	1	
C003	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C008	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C012	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C013	ECA0JM102	E 1000UF, 6.3V	1	
C014	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C018	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C020	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C022,23	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C024	ECA1CM101	E 100UF, 16V	1	
C025	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
C026	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C051	ECEA1HN010U	E 1UF, 50V	1	
C057	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C062,63	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C064	ECA1HM100	E 10UF, 50V	1	
C068	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C069	ECA1CHG101	E 100UF, 16V	1	
C070	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C071	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C081	ECJ2VB1H273K	C 0.027UF, K, 50V	1	
C351	ECA2EM100	E 10UF, 250V	1	
C353	ECKD2H103PU	C 0.01UF, P,500V	1	
C356	ECKD3D102KBN	C 1000PF, K, 2KV	1	
C357	ECQB1H104KF	P 0.1UF, K, 50V	1	
C360	ECA1VM470	E 47UF, 35V	1	
C361	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C364	ECA1VM470	E 47UF, 35V	1	
C365	ECA2EM470	E 47UF, 250V	1	

C303	ECA2EM470	E 47uF, 250V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C371	ECA2EM100	E 10UF, 250V	1	
C373	ECKD2H103PU	C 0.01UF, P,500V	1	
C374	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C376	ECKD3D102KBN	C 1000PF, K, 2KV	1	
C377	ECQB1H104KF	P 0.1UF, K, 50V	1	
C380	ECA1VM470	E 47UF, 35V	1	
C381	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C391	ECA2EM100	E 10UF, 250V	1	
C393	ECKD2H103PU	C 0.01UF, P,500V	1	
C396	ECKD3D102KBN	C 1000PF, K, 2KV	1	
C397	ECQB1H104KF	P 0.1UF, K, 50V	1	
C451	ECA1VM470	E 47UF, 35V	1	
C452,53	ECA1VM471	E 470UF, 35V	2	
C455	ECEA1CN220U	E 22UF, 16V	1	
C456	ECQB1224KF	P 0.22UF, 100V	1	
C460	ECA1HM100	E 10UF, 50V	1	
C461	ECA1HM102	E 1000UF, 50V	1	
C462	ECQV1H104JM	P 0.1UF, J, 50V	1	
C463	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C464	ECJ2XC1H471J	C 470UF, J, 50V	1	
C475	ECJ2XC1H151J	C 150PF, J, 50V	1	ECUM1H151JCN
C476	ECHS1H102FZ	P 1000PF, F, 50V	1	
C482	ECA1CM102	E 1000UF, 16V	1	
C490	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C502	ECA1VM101	E 100UF, 35V	1	
C503	ECQV1H104JM	P 0.1UF, J, 50V	1	
C504	ECKD2H102KB2	C 1000PF, K,500V	1	
C505	ECA1HM471	E 470UF, 50V	1	
C510	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C511	ECCD3F181KGE	C 270PF, K, 2KV	1	
C512	ECWH20242JVY	P 2400PF, J, 2KV	1	
C513	ECQF4153JZ	P 0.015UF, J,400V	1	
C514	ECWH20272JVY	P 2700PF, J, 2KV	1	
C515	ECWF2474JSR	P 0.47UF, J,250V	1	
C516	ECWH20152JVY	P 1500PF, J, 2KV	1	
C517,18	ECKD3D152JBP	C 1500PF, J, 2KV	2	
C519	ECQB1H393JF	P 0.039UF, J, 50V	1	
C520	ECA2EM470	E 47UF, 250V	1	
C521	ECKD2H102KB2	C 1000PF, K,500V	1	
C522	ECA160V33U	E 33UF, 160V	1	
C523	ECA1HM470	E 47UF, 50V	1	
C524	ECKD2H392KB2	C 3900PF, K,500V	1	
C525	ECKD2H122KB2	C 1200PF, K,500V	1	
C526	ERDS2TC0	C 0 OHM, 1/4W	1	
C531	ECKD2H101KB2	C 100PF, K,500V	1	
C701	ECKD3D271KBP	C 270PF, K, 2KV	1	
C702	ECQE2824KF	P 0.82UF, J,250V	1	
C704,05	ECQE1106KF	P 10UF, K,250V	2	
C802-04	ECKDAE472ZE	C 4700PF, Z,	3	
C805,06	ECQU2A224MN	P 0.22UF, M,250V	2	⚠
C807	ECKCNA332MEB	C 3300PF, Z,	1	⚠
C808	ECA1VM221	E 220UF, 35V	1	
C809	ECKCNA332MEB	C 3300PF, Z,	1	⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C812	**EC0S2EP471BB**	**E 470UF, 250V**	**1**	**ECOS2EP471BB X VERSION**
C813	**ECKD3D681KBP**	**C 680PF, K, 2KV**	**1**	
C814	**EC0S2EP471BB**	**E 470UF, 250V**	**1**	**ECOS2EP471BB X VERSION**
C815	**ECKD3D681KBP**	**C 680PF, K, 2KV**	**1**	
C816,17	**ECKCNA471MBB**	**C 470PF, Z,**	**2**	**ECKDNA471MB** ⚠
C819	**ECKD2H681KB2**	**C 680PF, K,500V**	**1**	
C820	**EC0S2EP471BB**	**E 470UF, 250V**	**1**	**X VERSION**
C820	**EC0S2GP221BB**	**E 220UF, 400V**	**1**	**EX X VERSION**
C822	**EC0S2EP471BB**	**E 470UF, 250V**	**1**	**X VERSION**
C822	**EC0S2GP221BB**	**E 220UF, 400V**	**1**	**EX X VERSION**
C823	**ECQF4333JZ**	**P 0.033UF, J,400V**	**1**	
C829	**ECQB1H681JF**	**P 680PF, J, 50V**	**1**	
C832	**ECKD3D102KBP**	**C 1000PF, K, 2KV**	**1**	
C833	**EETHC2C681B**	**E 680UF, 160V**	**1**	
C837	**EEUFC1E272**	**E 2700UF, 25V**	**1**	
C839	**ECKD3A151KBP**	**C 150PF, K, 1KV**	**1**	
C840	**EEUFC1E821**	**E 820UF, 25V**	**1**	
C841	**EEUFC1E272**	**E 2700UF, 25V**	**1**	
C842	**ECKD3A331KBP**	**C 330PF, K, 1KV**	**1**	
C859	**ECA1HM222**	**E 2200UF, 50V**	**1**	
C860	**ECKD2H471KB2**	**C 470PF, K,500V**	**1**	
C861	**ECA1HM102**	**E 1000UF, 50V**	**1**	
C862	**ECA1EM222**	**E 2200UF, 25V**	**1**	
C863,64	**ECKD3A472KBP**	**C 4700PF, K, 1KV**	**2**	**X VERSION**
C865,66	**ECA2WHG4R7**	**E 4.7UF, 450V**	**2**	**X VERSION**
C867	**ECQB1H473JF**	**P 0.047UF, J, 50V**	**1**	**X VERSION**
C868	**ECQE2A473KF**	**P 0.047UF, K,250V**	**1**	**X VERSION**
C869	**ECA0JM331**	**E 330UF, 6.3V**	**1**	
C870	**ECJ2VF1H104Z**	**C 0.1UF, Z, 50V**	**1**	
C872	**ECA1EM471**	**E 470UF, 25V**	**1**	
C873	**ECJ2VF1H104Z**	**C 0.1UF, Z, 50V**	**1**	
C874	**ECKCNA222MEB**	**C 2200PF,**	**1**	⚠
C876	**ECJ2VF1H223Z**	**C 0.022UF, Z, 50V**	**1**	
C878	**ECQU2A224MN**	**P 0.22UF, M,250V**	**1**	**X VERSION** ⚠
C880	**ECA1EM472**	**E 4700UF, 25V**	**1**	
C883	**ECA2WHG100**	**E 10UF, 450V**	**1**	
C884	**ECQV1H104JM**	**P 0.1UF, J, 50V**	**1**	
C885	**ECKF1H101KB**	**C 100PF, K, 50V**	**1**	
C886	**ECCD3D270KGE**	**C 27PF, K, 2KV**	**1**	
C888	**ECKD3A392KBN**	**C 3900PF, K, 1KV**	**1**	
C889	**ECA1CM222**	**E 2200UF, 16V**	**1**	
C890	**ECKD2H102KB2**	**C 1000PF, K,500V**	**1**	
C891	**ECA1CM471**	**E 470UF, 16V**	**1**	
C893	**ECKD3D681KBP**	**C 680PF, K, 2KV**	**1**	
C894	**ECA1VMH470**	**E 47UF, 35V**	**1**	
C895	**ECA1HMH100**	**E 10UF, 50V**	**1**	
C901	**ECEA1CN100U**	**E 10UF, 16V**	**1**	
C902	**ECA1CM101**	**E 100UF, 16V**	**1**	
C906	**ECA1CM101**	**E 100UF, 16V**	**1**	
C907	**ECCF1H121JC**	**C 120PF, J, 50V**	**1**	**ECCF1H121JC4**
C910	**ECA1HM100**	**E 10UF, 50V**	**1**	
C911	**ECA1CM101**	**E 100UF, 16V**	**1**	
C920	**ECKF1H103ZF**	**C 0.01UF, Z, 50V**	**1**	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C932	ECA1HM101	E 100UF, 50V	1	
C952	ECA1HM101	E 100UF, 50V	1	
C955	ECQM2103KZ	P 0.01UF, K,200V	1	
C958	ECA2CM100	E 10UF, 160V	1	
C961	ECA2CM100	E 10UF, 160V	1	
C962	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C964	ECA1CM101	E 100UF, 16V	1	
C966	ECA1CM101	E 100UF, 16V	1	
C967	ECA1CM221	E 220UF, 16V	1	
C972	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C973	ECQM2103KZ	P 0.01UF, K,200V	1	
C974	ECA1HM100	E 10UF, 50V	1	
C1014	ECA1CM101	E 100UF, 16V	1	
C1040	ECQB1H223JF	P 0.022UF, J, 50V	1	
C1041	ECA1HM470	E 47UF, 50V	1	
C1043	ECKF1H101KB	C 100PF, K, 50V	1	
C1054	ECCF1H101J	C 100PF, J, 50V	1	
C1101	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1102	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C1103-09	ECJ2VF1C104Z	C 0.1UF, Z, 16V	7	
C1112	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1115	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C1116,17	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C1118	ECJ2XB1H472K	C 4700PF, K, 50V	1	
C1119-29	ECJ2VF1C104Z	C 0.1UF, Z, 16V	11	
C1130	EEVHB0G221	E 220UF, 4V	1	
C1131,32	ECJ2XC1H220J	C 22UF, J, 50V	2	ECUM1H220JCN
C1133-36	ECJ2VF1C104Z	C 0.1UF, Z, 16V	4	
C1137	EEVHB0G221	E 220UF, 4V	1	
C1140	ECJ2XB1E104K	C 0.1UF, K, 25V	1	TX MODEL
C1142	ECJ2XC1H151J	C 150PF, J, 50V	1	ECUM1H151JCN TX MODEL
C1144	ECJ2XG1H101J	C 100PF, J, 50V	1	
C1146	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1147	ECA1CM101	E 100UF, 16V	1	
C1148	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1150,51	ECJ2VB1C104K	C 0.1UF, K, 16V	2	
C1152,53	ECJ2XB1H103K	C 0.01UF, K, 50V	2	
C1154	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1156	ECA1HM100	E 10UF, 50V	1	
C1157,58	TCUY0J335MBM	C 3.3UF, 6.3V	2	F1K0J335A003
C1159,60	EEVHB1C100	E 10UF, 16V	2	
C1161	EEVHB0G221	E 220UF, 4V	1	
C1162	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1163	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C1164	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1165	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1166	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1167	EEVHB1C101P	E 100UF, 16V	1	
C1168	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1170	ECEA1EKN100	E 10UF, 25V	1	
C1251	ECA1CM101	E 100UF, 16V	1	
C1252	ECA1HM100	E 10UF, 50V	1	
C1253,54	ECJ2VB1C104K	C 0.1UF, K, 16V	2	
C1255	ECA1VM470	E 47UF, 35V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1290	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1291	ECA1CM471	E 470UF, 16V	1	
C1292,93	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C1294	ECA1CM101	E 100UF, 16V	1	
C1295	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1296	ECA1CM471	E 470UF, 16V	1	
C1300	ECJ1VC1H120J	C 12PF, J, 50V	1	
C1301	ECJ1XC1H151J	C 150PF, J, 50V	1	
C1302	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1303	ECJ1VC1H120J	C 12PF, J, 50V	1	
C1304,05	ECJ1XC1H151J	C 150PF, J, 50V	2	
C1306	ECJ1XC1H680J	C 68PF, J, 50V	1	ECUX1H680JCV
C1308	ECJ1XC1H151J	C 150PF, J, 50V	1	
C1309	ECJ1XC1H181J	C 180PF, J, 50V	1	
C1312	ECJ1XC1H151J	C 150PF, J, 50V	1	
C1313	TACCN0J105KT	C 1UF, 6.3V	1	
C1315	TACCN0J105KT	C 1UF, 6.3V	1	
C1316-18	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C1319	ECJ1XC1H470J	C 47PF, J, 50V	1	
C1320	ECJ1XC1H060D	C 6PF, C, 50V	1	ECUX1H060DCV
C1322-34	ECJ2VF1C105Z	C 1UF, Z, 16V	13	
C1335	ECJ1VB1H103K	C 0.01UF, K, 50V	1	
C1336	TCUY0J335MBM	C 3.3UF, 6.3V	1	F1K0J335A003
C1337-41	ECJ2VF1C105Z	C 1UF, Z, 16V	5	
C1342	ECJ1XF1H103Z	C 0.01UF, Z, 50V	1	
C1344-54	ECJ2VF1C105Z	C 1UF, Z, 16V	11	
C1355,56	TCUY0J335MBM	C 3.3UF, 6.3V	2	F1K0J335A003
C1357	ECJ1XC1H330J	C 33PF, J, 50V	1	
C1358,59	ECJ1VB1H472K	C 4700PF, K, 50V	2	
C1360	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1361	ECJ1VB1H103K	C 0.01UF, K, 50V	1	
C1362	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C1363	ECJ1XC1H102J	C 1000PF, J, 50V	1	ECUX1H102JCV
C1364	ECJ1XC1H680J	C 68PF, J, 50V	1	ECUX1H680JCV
C1365	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1367	TACCN0J105KT	C 1UF, 6.3V	1	
C1370	ECJ1VB1H103K	C 0.01UF, K, 50V	1	
C1371	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1372	ECJ1XF1H103Z	C 0.01UF, Z, 50V	1	
C1373	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1374	ECJ1VB1H222K	C 2200PF, K, 50V	1	
C1376	ECJ1XC1H680J	C 68PF, J, 50V	1	ECUX1H680JCV
C1377	ECJ1VB1C104K	C 0.1UF, K, 16V	1	
C1378	ECJ1VB1H222K	C 2200PF, K, 50V	1	
C1379	ECJ1VB1C104K	C 0.1UF, K, 16V	1	
C1380	TACCN0J105KT	C 1UF, 6.3V	1	
C1381	ECJ1XC1H330J	C 33PF, J, 50V	1	
C1382	ECJ1XB1C393K	C 0.039UF, K, 16V	1	
C1383	TACCN0J105KT	C 1UF, 6.3V	1	
C1384	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1385	ECJ1XF1H103Z	C 0.01UF, Z, 50V	1	
C1386,87	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C1389	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1390,91	TACCN0J105KT	C 1UF, 6.3V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1392	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1395	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1396	EEVHB0G221	E 220UF, 4V	1	
C1398,99	ECJ1VC1H120J	C 12PF, J, 50V	2	
C1400	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1401	ECJ1XC1H101J	C 100PF, J, 50V	1	
C1404	ECJ1XC1H151J	C 150PF, J, 50V	1	
C1405	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C1411-13	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C1414	ECJ1XC1H470J	C 47PF, J, 50V	1	
C1415	ECJ1XC1H060D	C 6PF, C, 50V	1	ECUX1H060DCV
C1417-41	ECJ2VF1C105Z	C 1UF, Z, 16V	25	
C1442	ECJ1VB1H472K	C 4700PF, K, 50V	1	
C1443	TCUY0J335MBM	C 3.3UF, 6.3V	1	F1K0J335A003
C1444-47	ECJ2VF1C105Z	C 1UF, Z, 16V	4	
C1448	TCUY0J335MBM	C 3.3UF, 6.3V	1	F1K0J335A003
C1449	ECJ1XF1H103Z	C 0.01UF, Z, 50V	1	
C1450-52	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C1454	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1455-58	ECJ2VB1C104K	C 0.1UF, K, 16V	4	
C1460	TCUY0J335MBM	C 3.3UF, 6.3V	1	F1K0J335A003
C1461	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1462	ECJ1VB1H332K	C 3300PF, K, 50V	1	
C1464	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C1465	TCUY0J335MBM	C 3.3UF, 6.3V	1	F1K0J335A003
C1466	ECJ1XC1H680J	C 68PF, J, 50V	1	ECUX1H680JCV
C1467	ECJ1XC1H330J	C 33PF, J, 50V	1	
C1468-70	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C1471	ECJ1XC1H330J	C 33PF, J, 50V	1	
C1472	ECJ1XC1H680J	C 68PF, J, 50V	1	ECUX1H680JCV
C1473-75	ECJ2VB1C104K	C 0.1UF, K, 16V	3	
C1476	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C1477	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C1478	TCUY0J335MBM	C 3.3UF, 6.3V	1	F1K0J335A003
C1479,80	EEVHP1C100	E 10UF, 16V	2	
C1481,82	TACCN0J105KT	C 1UF, 6.3V	2	
C1483	EEVHP1E4R7	E 4.7UF, 25V	1	
C1484,85	EEVHP1C100	E 10UF, 16V	2	
C1489	TACCN0J105KT	C 1UF, 6.3V	1	
C1493	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C1494,95	EEVHB0G221	E 220UF, 4V	2	
C1496	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C1498	EEVHB0G221	E 220UF, 4V	1	
C1499,00	EEVHB0J101	E 100UF, 6.3V	2	EEVHB0J101P
C1501	EEVHB1C470	E 47UF, 16V	1	
C1502,03	EEVHB0J101	E 100UF, 6.3V	2	EEVHB0J101P
C1505-07	EEVHB0G221	E 220UF, 4V	3	
C1508	EEUFC1A101	E 100UF, 10V	1	
C1510,11	ECJ2VB1C104K	C 0.1UF, K, 16V	2	
C1513-15	ECJ2XB1H103K	C 0.01UF, K, 50V	3	
C1516	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C1544	ECA1CM101	E 100UF, 16V	1	
C1550,51	ECA1CM101	E 100UF, 16V	2	
C1564,65	ECA1HM4R7	E 4.7UF, 50V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1566	ECA1HM220	E 22UF, 50V	1	
C1568,69	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C2007	ECJ2XC1H560J	C 56PF, J, 50V	1	ECUM1H560JCN
C2008,09	ECJ2XC1H470J	C 47PF, J, 50V	2	ECUM1H470JCN
C2010	ECJ2XC1H560J	C 56PF, J, 50V	1	ECUM1H560JCN
C2011	ECJ2XC1H070D	C 7PF, D, 50V	1	ECUM1H070DCN
C2014	ECJ2XC1H010C	C 1PF, C, 50V	1	ECUM1H010CCN
C2015	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2016	ECA1CM101	E 100UF, 16V	1	
C2017	ECJ2XC1H010C	C 1PF, C, 50V	1	ECUM1H010CCN
C2024	ECJ3VB1C474K	C 0.47UF, K, 16V	1	
C2025	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2027	ECA1HM100	E 10UF, 50V	1	
C2028	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2029	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C2030	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2031	ECA1CM101	E 100UF, 16V	1	
C2032	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2033	ECA1HM100	E 10UF, 50V	1	
C2034,35	ECJ2XB1H103K	C 0.01UF, K, 50V	2	
C2037	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2038	ECA1HM100	E 10UF, 50V	1	
C2039	ECA1CM101	E 100UF, 16V	1	
C2040	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2041	ECA1HM3R3	E 3.3UF, 50V	1	
C2042-45	ECJ2XB1H102K	C 1000PF, K, 50V	4	
C2224,25	ECEA1HKA100	E 10UF, 50V	2	
C2290	ECEA1HN4R7U	E 4.7UF, 50V	1	
C2291	ECQV1H104JM	P 0.1UF, J, 50V	1	
C2292	ECA0JM222	E 2200UF, 6.3V	1	
C2293	ECA1VM470	E 47UF, 35V	1	
C2294,95	ECA1HM221	E 220UF, 50V	2	
C2296	ECA1CM101	E 100UF, 16V	1	
C2297	ECKF1H472KB	C 4700PF, K, 50V	1	
C2304	ECA1HHG100	E 10UF, 50V	1	
C2305-07	ECA1VM101	E 100UF, 35V	3	
C2308	ECA1HM100	E 10UF, 50V	1	
C2309,10	ECA1VM102	E 1000UF, 35V	2	
C2312	ECQV1H104JM	P 0.1UF, J, 50V	1	
C2313,14	ECQB1H272JF	P 2700PF, J, 50V	2	
C2315	ECA1HM102	E 1000UF, 50V	1	
C2316	ECQV1H104JM	P 0.1UF, J, 50V	1	
C2317	ECA1HM4R7	E 4.7UF, 50V	1	
C2318	ECA1HHG220	E 22UF, 50V	1	
C2319	ECJ2XB1H102K	C 1000PF, K, 50V	1	
C2320	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C2321	ECA1CM471	E 470UF, 16V	1	
C2324	ECJ2XB1H152K	C 1500PF, K, 50V	1	
C2325	ECA1HM4R7	E 4.7UF, 50V	1	
C2326	ECJ2XB1H332K	C 3300PF, K, 50V	1	ECUM1H332KBN
C2327	ECJ2XB1H102K	C 1000PF, K, 50V	1	
C2328	ECJ2XC1H102J	C 1000UF, J, 50V	1	ECUM1H102JCN
C2329	ECJ2XC1H102J	C 1000UF, J, 50V	1	51 INCH MODEL
C2330	ECJ2XC1H102J	C 1000UF, J, 50V	1	ECUM1H102JCN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2331	ECJ2XC1H102J	C 1000UF, J, 50V	1	51 INCH MODEL
C2332	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C2333	ECA50YT2R2K	E 2.2UF, 50V	1	51 INCH MODEL
C2334	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C2335	ECA50YT2R2K	E 2.2UF, 50V	1	51 INCH MODEL
C2336	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C2337	ECA1CM470	E 47UF, 16V	1	
C2338,39	ECA1HM221	E 220UF, 50V	2	
C2340	ECA1CM101	E 100UF, 16V	1	
C2341	ECA1HM220	E 22UF, 50V	1	
C2342	ECA1CM101	E 100UF, 16V	1	
C2343	ECA1HM100	E 10UF, 50V	1	
C2344,45	ECJ2XB1H472K	C 4700PF, K, 50V	2	
C2349	ECQV1H105JM	P 1UF, J, 50V	1	
C2351	ECA1CM471	E 470UF, 16V	1	
C2352	ECEA1HN2R2U	E 2.2UF, 50V	1	
C2354	ECEA1HN4R7U	E 4.7UF, 50V	1	
C2355	ECQV1H105JM	P 1UF, J, 50V	1	
C2356	ECQV1H104JM	P 0.1UF, J, 50V	1	
C2359	ECA1HM100	E 10UF, 50V	1	
C2372,73	ECEA1HNR33U	E 0.33UF, 50V	2	
C2378	ECA0JM222	E 2200UF, 6.3V	1	
C2379	ECA1CM101	E 100UF, 16V	1	
C2381	ECA1HM010	E 1UF, 50V	1	
C2382	ECKF1H472KB	C 4700PF, K, 50V	1	
C2385	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C2590	ECA1CM471	E 470UF, 16V	1	
C2702	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C2703	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2704	ECA1EM471	E 470UF, 25V	1	
C2707	ECA1CHG471	E 470UF, 16V	1	
C2708	EEUFC1A471	E 470UF, 10V	1	
C2711	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2713	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C2716	EEUFC1A471	E 470UF, 10V	1	
C2719,20	ECA1CM471	E 470UF, 16V	2	
C2722,23	ECJ2VF1H104Z	C 0.1UF, Z, 50V	2	
C2726	ECA1EHG471	E 470UF, 25V	1	
C2730,31	EEUFC1E471	E 470UF, 25V	2	
C2732	EEUFC1A471	E 470UF, 10V	1	
C2733	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C2734	ECA1EM471	E 470UF, 25V	1	
C2737	ECA1CM471	E 470UF, 16V	1	
C2738	ECA1CM101	E 100UF, 16V	1	
C2739	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C2740	ECA1CM471	E 470UF, 16V	1	
C2750,51	TACCN0J105KT	C 1UF, 6.3V	2	
C2761	ECJ2XC1H101J	C 100UF, J, 50V	1	
C3006	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3013-17	ECJ2VF1C105Z	C 1UF, Z, 16V	5	
C3018	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C3020	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3021	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C3022,23	ECJ2XB1H103K	C 0.01UF, K, 50V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3024	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3025	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C3026-29	ECJ2VF1C105Z	C 1UF, Z, 16V	4	
C3030	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C3032,33	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C3034	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3035	ECA1CM101	E 100UF, 16V	1	
C3036	ECA1CM470	E 47UF, 16V	1	
C3037,38	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C3042-45	ECJ2VF1C105Z	C 1UF, Z, 16V	4	
C3046	ECA1CM101	E 100UF, 16V	1	
C3047-49	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C3050	ECA1CM221	E 220UF, 16V	1	
C3051	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3053,54	ECA1HM010	E 1UF, 50V	2	
C3057,58	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C3061-64	ECA1HM100	E 10UF, 50V	4	
C3067	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C3068	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3069	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3070	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C3077,78	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C3079	ECEA1CN470U	E 47UF, 16V	1	
C3080	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C3101-04	ECQB1H563JF	P 0.056UF, J, 50V	4	
C3107	ECKF1H561KB	C 560PF, K, 50V	1	
C3109	ECKF1H561KB	C 560PF, K, 50V	1	
C3112	ECJ2XC1H680J	C 68PF, J, 50V	1	ECUM1H680JCN
C3113,14	ECA1CM470	E 47UF, 16V	2	
C3115	ECEA1CN470U	E 47UF, 16V	1	
C3301-03	ECJ2VF1C104Z	C 0.1UF, Z, 16V	3	
C3323	ECA1HHG100	E 10UF, 50V	1	
C3352	ECA2AM220	E 22UF, 160V	1	
C3353	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C3362	ECA2AM220	E 22UF, 160V	1	
C3363	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C3372	ECA2AM220	E 22UF, 160V	1	
C3373	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C3410	ECJ2XC1H561J	C 560PF, J, 50V	1	
C3412	ECJ2XC1H561J	C 560PF, J, 50V	1	
C3414,15	ECJ2XC1H561J	C 560PF, J, 50V	2	
C3417	ECJ2XC1H561J	C 560PF, J, 50V	1	
C3420	ECJ2XC1H561J	C 560PF, J, 50V	1	
C3422	ECJ2XC1H561J	C 560PF, J, 50V	1	
C3424	ECJ2XC1H561J	C 560PF, J, 50V	1	
C3426	ECJ2XC1H561J	C 560PF, J, 50V	1	
C3430	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3450,51	ECEA1AKA221	E 220UF, 10V	2	
C3452,53	ECEA1CKA101	E 100UF, 16V	2	
C6715	ECKD3D681KBP	C 680PF, K, 2KV	1	
C6718	ECCD3D220KGE	C 22PF, K, 2KV	1	
C6731,32	ECKD3D681KBP	C 680PF, K, 2KV	2	
C7001	ECA1HHG2R2	E 2.2UF, 50V	1	
C7002,03	ECJ2VF1H103Z	C 0.01UF, Z, 50V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7004,05	ECA1VHG101	E 100UF, 35V	2	
C7006	ECJ2XC1H681J	C 680PF, J, 50V	1	
C7007	ECJ2XC1H220J	C 22UF, J, 50V	1	ECUM1H220JCN
C7008	ECJ2XC1H681J	C 680PF, J, 50V	1	
C7009	ECJ2XC1H220J	C 22UF, J, 50V	1	ECUM1H220JCN
C7010	ECJ2XC1H681J	C 680PF, J, 50V	1	
C7011	ECJ2XC1H220J	C 22UF, J, 50V	1	ECUM1H220JCN
C7012	ECA1HHG2R2	E 2.2UF, 50V	1	
C7013,14	ECA1VHG101	E 100UF, 35V	2	
C7015,16	ECJ2VF1H103Z	C 0.01UF, Z, 50V	2	
C7017	ECJ2XC1H681J	C 680PF, J, 50V	1	
C7018	ECJ2XC1H220J	C 22UF, J, 50V	1	ECUM1H220JCN
C7019	ECJ2XC1H681J	C 680PF, J, 50V	1	
C7020	ECJ2XC1H220J	C 22UF, J, 50V	1	ECUM1H220JCN
C7021	ECJ2XC1H681J	C 680PF, J, 50V	1	
C7022	ECJ2XC1H220J	C 22UF, J, 50V	1	ECUM1H220JCN
C7090-95	ECJ2XB1H102K	C 1000PF, K, 50V	6	
C7101	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C7102	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7103	ECA1CM222	E 2200UF, 16V	1	
C7104	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C7105-07	ECJ2XC1H101J	C 100UF, J, 50V	3	
C7108	ECA1CM101	E 100UF, 16V	1	
C7109-11	ECEA1CKA470	E 47UF, 16V	3	
C7112,13	ECJ2XC1H561J	C 560PF, J, 50V	2	
C7114	ECJ2VC1H821J	C 820PF, J, 50V	1	
C7115-19	ECJ2VF1H103Z	C 0.01UF, Z, 50V	5	
C7120	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C7121-25	ECJ2VF1H103Z	C 0.01UF, Z, 50V	5	
C7126-28	ECEA1CKA470	E 47UF, 16V	3	
C7129,30	ECJ2VF1H103Z	C 0.01UF, Z, 50V	2	
C7131-34	ECJ2XC1H561J	C 560PF, J, 50V	4	
C7135	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7136	ECA1CM101	E 100UF, 16V	1	
C7137-40	ECJ2XC1H101J	C 100UF, J, 50V	4	
C7141	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7142	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C7143-48	ECJ2VF1C105Z	C 1UF, Z, 16V	6	
C7149	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C7150	ECA1VM470	E 47UF, 35V	1	
C7151-53	ECJ2VF1H103Z	C 0.01UF, Z, 50V	3	
C7154	ECA1CM101	E 100UF, 16V	1	
C7155-57	ECEA1CKA470	E 47UF, 16V	3	
C7158-61	ECJ2XC1H681J	C 680PF, J, 50V	4	
C7162	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7163,64	ECJ2XC1H681J	C 680PF, J, 50V	2	
C7165	ECA1VM470	E 47UF, 35V	1	
C7166	ECJ2XC1H681J	C 680PF, J, 50V	1	
C7167	ECEA1CKA470	E 47UF, 16V	1	
C7168	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7169,70	ECEA1CKA470	E 47UF, 16V	2	
C7171,72	ECJ2VF1H103Z	C 0.01UF, Z, 50V	2	
C7173	ECJ2VB1H273K	C 0.027UF, K, 50V	1	
C7174-76	ECJ2VF1H103Z	C 0.01UF, Z, 50V	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7188-90	ECJ2XC1H560J	C 56PF, J, 50V	3	ECUM1H560JCN
C7191	TCUY1C105ZFN	C 1UF, 16V	1	F1J1C1050006
C7193,94	ECA1CM101	E 100UF, 16V	2	
C7195	ECJ2XC1H101J	C 100UF, J, 50V	1	
C7196	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C7197	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7709-11	ECJ2XC1H271J	C 270PF, J, 50V	3	
C7712	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C7713	ECA1EM471	E 470UF, 25V	1	
C7714	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C7715	TCUY1C105ZFN	C 1UF, 16V	1	F1J1C1050006
C7716	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7717	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C7718	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C7719-21	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C7725	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C7726	ECA1CM101	E 100UF, 16V	1	
C9301-03	ECJ2VF1H103Z	C 0.01UF, Z, 50V	3	
C9311	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C9312	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	43 INCH MODEL
C9320	ECJ2XB1H152K	C 1500PF, K, 50V	1	
C9322-24	ECJ2VF1H103Z	C 0.01UF, Z, 50V	3	
C9351	ECA1CM101	E 100UF, 16V	1	
C9352,53	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C9601	ECA1VMH470	E 47UF, 35V	1	
C9602	ECJ2XC1H101J	C 100UF, J, 50V	1	
C9603	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C9604	ECA1HM220	E 22UF, 50V	1	
C9611	ECWH16473JV	P 0.047PF,J,1.6KV	1	
C9612	ECA1CM101	E 100UF, 16V	1	
C9613	ECEA1EN101U	E 100UF, 25V	1	
C9614	ECJ2XC1H471J	C 470UF, J, 50V	1	
C9615	ECQB1H223JF	P 0.022UF, J, 50V	1	
D001	MA4020	ZENER DIODE	1	MAZ4020
D1	TJSF20016	16P CONNECTOR	1	K1KB16A00050
D002	MA4020	ZENER DIODE	1	MAZ4020
D2	TJSF20016	16P CONNECTOR	1	K1KB16A00050
D003	MA3150H	ZENER DIODE	1	MAZ31500H
D3	TJSF20016	16P CONNECTOR	1	K1KB16A00050
D4	K1KA03A00172	3P CONNECTOR	1	
D004	MA3150H	ZENER DIODE	1	MAZ31500H
D5	TJS3A9880	8P CONNECTOR	1	K1KA08A00179
D6	TJSF20016	16P CONNECTOR	1	K1KB16A00050
D8	TJS3A9670	6P CONNECTOR	1	K1KA06A00179
D010	MA152K	DIODE	1	MA3X152K
D12	K1KA03A00172	3P CONNECTOR	1	
D13-15	TJS3A9650	4P CONNECTOR	3	K1KA04A00194
D40	TJS5A9420	8P CONNECTOR	1	K1KB08A00054
D051,52	MA4020	ZENER DIODE	2	MAZ4020
D053	MA152K	DIODE	1	MA3X152K
D60	TJS5A9420	8P CONNECTOR	1	K1KB08A00054
D70	TJS5A9420	8P CONNECTOR	1	K1KB08A00054
D353,54	MA165	DIODE	2	MA2C165

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D357	MA165	DIODE	1	MA2C165
D360-63	MA188	DIODE	4	MA2C188
D366	AM01Z	DIODE	1	B0EAKC000002
D367-70	MA188	DIODE	4	MA2C188
D373,74	MA165	DIODE	2	MA2C165
D377	MA165	DIODE	1	MA2C165
D387-90	MA188	DIODE	4	MA2C188
D393,94	MA165	DIODE	2	MA2C165
D397	MA165	DIODE	1	MA2C165
D452	MA152K	DIODE	1	MA3X152K
D453	EU02A	DIODE	1	B0HAMR000047
D454,55	MA152K	DIODE	2	MA3X152K
D456	ERA22-02	DIODE	1	B0HAGM000001
D457-60	AM01Z	DIODE	4	B0EAKC000002
D461	MA3030H	ZENER DIODE	1	
D462	MA721	DIODE	1	MA3X721
D463	ERZV07D470CS		1	
D464	MA188		1	
D465	MA3039H	ZENER DIODE	1	MAZ30390H
D500,01	D1NL40V70	DIODE	2	B0HALP000002
D502	MA4150M	ZENER DIODE	1	MAZ41500M
D503	FMV-3GU	DIODE	1	
D504	MA4270M	ZENER DIODE	1	MAZ42700M
D505	MA4030M	ZENER DIODE	1	MAZ40300M
D510,11	D1NL40V70	DIODE	2	B0HALP000002
D512-14	MA182	DIODE	3	MA2B182
D519	AU02Z	DIODE	1	B0HAKM000004
D530	MA165	DIODE	1	MA2C165
D701	D1NL40V70	DIODE	1	B0HALP000002
D702	MA4120M	ZENER DIODE	1	MAZ41200M
D801	D4SB80Z	DIODE	1	B0EBNT000004 ⚠
D805	MA2240B	ZENER DIODE	1	MAZ22400B
D807	TLP721FD4GR		1	B3PAA0000153 ⚠
D809	MA2082-A	ZENER DIODE	1	MAZ20820A
D811	MA2082-A	ZENER DIODE	1	MAZ20820A
D813	ERDS2TC0	C 0 OHM, 1/4W	1	
D815	MA4220M	ZENER DIODE	1	MAZ42200M
D816	MA165	DIODE	1	MA2C165
D819-21	ERA22-04	DIODE	3	B0HAGP000001
D822,23	ERC13-08	DIODE	2	B0EAKT000022 X VERSION
D828	FML-12S	DIODE	1	B0HBRM000012
D829	ERC91-02	DIODE	1	B0HAPM000003
D831	FMGG2CS	DIODE	1	B0HAPV000011
D851	FML22S	DIODE	1	B0HFRJ000011
D860	FMGG26S	DIODE	1	
D869,70	MA152K	DIODE	2	MA3X152K
D871	ERA22-02	DIODE	1	B0HAGM000001
D875,76	ERZV14D511	VARISTOR	2	
D884	0N3171R	PHOTO COUPLER	1	⚠
D885	MA4056H	ZENER DIODE	1	MAZ40560H
D886	MA165	DIODE	1	MA2C165
D890	EU02	DIODE	1	
D893	ERC13-08	DIODE	1	B0EAKT000022

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D894	MA152K	DIODE	1	MA3X152K
D953	TVSSR2KN	DIODE	1	B0ZAZ0000041
D962	MA188	DIODE	1	MA2C188
D1011	LNG201RFC	DIODE	1	
D1012,13	MA4056M	ZENER DIODE	2	MAZ40560M
D1152,53	MA152K	DIODE	2	MA3X152K
D1301	MA152K	DIODE	1	MA3X152K
D1305	MA704A	DIODE	1	MA3X704A
D1306	MA3062M	ZENER DIODE	1	MAZ30620M
D1307	MA3091M	ZENER DIODE	1	MAZ30910M
D1308,09	MA152K	DIODE	2	MA3X152K
D1310-12	MA3062M	ZENER DIODE	3	MAZ30620M
D1313	MA3043M	ZENER DIODE	1	MAZ30430M
D1315	MA3043M	ZENER DIODE	1	MAZ30430M
D1354	MA152WK	DIODE	1	MA3X152E
D2040-42	MA152K	DIODE	3	MA3X152K
D2302	MTZJ5.6B	ZENER DIODE	1	
D2304	MA152K	DIODE	1	MA3X152K
D2305	MA3360M	ZENER DIODE	1	MAZ33600M
D2308	MA4360M	ZENER DIODE	1	MAZ43600M
D2310	MA3360M	ZENER DIODE	1	MAZ33600M
D2312	MA3130H	ZENER DIODE	1	
D2313,14	MA152K	DIODE	2	MA3X152K
D2316	MA152K	DIODE	1	MA3X152K
D2322	RU3YX-M	DIODE	1	
D2361	MTZJ5.6B	ZENER DIODE	1	
D2711	RK34	DIODE	1	
D2712	AK04	DIODE	1	B0JAMC000003
D2713,14	RK34	DIODE	2	
D3003,04	MA3091L	ZENER DIODE	2	
D3007	MA157A	DIODE	1	MA3X157A
D3008	MA3091	ZENER DIODE	1	MAZ3091
D3010,11	MA3091	ZENER DIODE	2	MAZ3091
D3351,52	MA165	DIODE	2	MA2C165
D3361,62	MA165	DIODE	2	MA2C165
D3371,72	MA165	DIODE	2	MA2C165
D3410	MA152K	DIODE	1	MA3X152K
D3411	MA3020	ZENER DIODE	1	
D6705	EG01C	DIODE	1	B0HAGV000001
D6710	MA2082-A	ZENER DIODE	1	MAZ20820A
D6712	ERC13-08	DIODE	1	B0EAKT000022
D6717,18	ERC13-08	DIODE	2	B0EAKT000022
D7101	MA157A	DIODE	1	MA3X157A
D7102,03	MA152K	DIODE	2	MA3X152K
D7707	MA152WK	DIODE	1	MA3X152E
D7708	MA152K	DIODE	1	MA3X152K
D7709	MA152WK	DIODE	1	MA3X152E
D9350,51	MA3051M	ZENER DIODE	2	MAZ30510M
D9352	MA152K	DIODE	1	MA3X152K
D9353	MA188	DIODE	1	43 INCH MODEL
D9354	MA3030H	ZENER DIODE	1	43 INCH MODEL
D9601	MA3075H	ZENER DIODE	1	MAZ30750H
D9602	RP1H	DIODE	1	B0HACW000001
D9603,04	MA3030H	ZENER DIODE	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D9605	MA29B	DIODE	1	
D9606	MA152K	DIODE	1	MA3X152K
D9607	MA4062L	ZENER DIODE	1	MAZ40620L
F801	XBA2C50TR0	FUSE 250V 5A	1	K5D502BK0003
F801-1,-2	EYF-52BC	FUSE HOLDER	2	
H1,H2	TJSF17425	25P CONNECTOR	2	K1KA25B00004
IC051,52	AN7805F	LINEAR IC	2	
IC451	LA7845N	LINEAR IC	1	C1AA00000529
IC459	TC74HC221AF	MOS IC (CMOS S/LOGIC)	1	C0JBAM000065
IC501	NJM2903M	INTEGRATED CIRCUIT	1	C0BBBA000019
IC801	STRF6656LF53	LINEAR IC	1	C5HABZZ00014
IC802	STR83145LF55	LINEAR IC	1	X VERSION
IC808	SE139N	LINEAR IC	1	
IC810	AN7812	LINEAR IC	1	
IC881	MIP2810001TV	IC (ROGIC)	1	
IC1101	SDA6000	INTEGRATED CIRCUIT	1	
IC1102	TVRJ646-4	ROM IC	1	C3FBKD000104
IC1104	TVRJ651-1	ROM IC (EEPROM 16KBIT)	1	43 INCH MODEL
IC1104	TVRJ649-1	ROM IC	1	51 INCH MODEL
IC1105	S-80843ALY-Z	LINEAR IC	1	C0EAH0000067
IC1106	TVSA0500	IC	1	C3ABMG000074
IC1107	TC7MBD3245KL	IC	1	C0JBAZ001839
IC1108	AN78L05	LINEAR IC	1	
IC1109	PST9119NR	INTEGRATED CIRCUIT	1	
IC1110	PST9128NR	IC (LOGIC)	1	C0EBE0000066
IC1111	TC7SH32FU	IC	1	
IC1251	SI-3033C	HYBRID IC	1	C0DAEGG00007
IC1252	PQ30RV21A	LINEAR IC	1	C0DAEZH00008
IC1253	M62392FP	IC	1	C0FBBD000083
IC1254	PST9128NR	IC (LOGIC)	1	C0EBE0000066
IC1301	C1AB00001494	OR C1AB00001468	1	
IC1302	TC74HC4066TL	IC	1	
IC1303	C1AB00001310	MB87L1601 OR C1AB00001282	1	
IC1304	C1AB00001494	OR C1AB00001468	1	
IC1305	SDA9415	INTEGRATED CIRCUIT	1	
IC1306,07	MM1065ZMR	LINEAR IC	2	C0CBABB00029
IC1310	TC7WH241FU	MOS IC (CMOS S/LOGIC)	1	C0JBAZ001263
IC1311	MM1065ZMR	LINEAR IC	1	C0CBABB00029
IC1312	NJM2904V	INTEGRATED CIRCUIT	1	C0ABBA000084
IC1314	NJM2904M	LINEAR IC	1	C0ABBA000021
IC1315	AN5394FB	IC	1	
IC2001	TVSA0431	IC	1	
IC2301	TA8200AH	LINEAR IC	1	C1AA00000348
IC2302	AN7108	LINEAR IC	1	
IC2304	AN7108	LINEAR IC	1	
IC2705,06	PQ1CG21H2RZ	INTEGRATED CIRCUIT	2	C0DACMG00001
IC2707	AN7808	LINEAR IC	1	
IC2708	SI-8090K	HYBRID IC	1	
IC2709	PQ1CG21H2RZ	INTEGRATED CIRCUIT	1	C0DACMG00001
IC2710	SI-3033C	HYBRID IC	1	C0DAEGG00007
IC3001	CXA2069Q	LINEAR IC	1	C1AB00000459

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC3003	CXA1211M	LINEAR IC	1	C1AB00000013
IC3004,05	C0ZBZ0000451	IC	2	
IC7001,02	STK392-110	LINEAR IC	2	C5AA00000108
IC7101	AN78L05M	LINEAR IC	1	
IC7102	TVRJ591	ROM IC	1	24LC64T-I/SN
IC7103	TC7WH04FU	MOS IC (CMOS S/LOGIC)	1	
IC7104	C0FBBH000040	IC	1	
IC7105,06	TL084CNS	IC	2	C0AAFB000011
IC7107	C1AB00001220	IC	1	
IC7108	AN78L12M	LINEAR IC	1	
IC7109	AN79L12M	IC	1	
IC7110	BA7603F	IC	1	
IC7121	CXA1875AM	LINEAR IC	1	C0FBBD000017
IC7702	CXA1315M	LINEAR IC	1	C1AB00000440
IC7703	AN6912S	IC	1	
IC9351	AN78N09	LINEAR IC	1	
IC9601	AN6562S	LINEAR IC	1	
J10	ERD25TC0	C 0 OHM, 1/4W	1	
JA1,A2	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
JA4-A9	ERJ6GEY0R00	M 0 OHM,J,1/10W	6	
JA12	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JA14-21	ERJ6GEY0R00	M 0 OHM,J,1/10W	8	
JA23-25	ERJ6GEY0R00	M 0 OHM,J,1/10W	3	
JK351	TJSC00700	CRT SOCKET	1	K3B10CA00006 ⚠
JK371	TJSC00700	CRT SOCKET	1	K3B10CA00006 ⚠
JK391	TJSC00700	CRT SOCKET	1	K3B10CA00006 ⚠
JK3102	TJB4G636	TERMINAL	1	
JK3401	TJB4G639	TERMINAL	1	
JS12	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS14-18	ERJ6GEY0R00	M 0 OHM,J,1/10W	5	
JS24	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS27	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS32,33	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
JS99	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS7102,03	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
JS7106	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS7108	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	43 INCH MODEL
JSA5-A7	ERJ6GEY0R00	M 0 OHM,J,1/10W	3	
JSA22	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA30	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA33-36	ERJ6GEY0R00	M 0 OHM,J,1/10W	4	
JSA42	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA65,66	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
JSA68	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA70	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA73	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA78	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA84	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
JSA90	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSA92-95	ERJ6GEY0R00	M 0 OHM,J,1/10W	4	
JSA101	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSD14	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSDG16-18	ERJ6GEY0R00		3	
JSDG18	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSDG27	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSDG55	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
JSDG57-88	ERJ3GEY0R00	M 0 OHM, 1/16W	32	
JSDG100	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSDG103	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSDG104-09	ERJ3GEY0R00	M 0 OHM, 1/16W	6	
JSDG111,12	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
JSDG113	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JSH1-H6	ERJ6GEY0R00	M 0 OHM,J,1/10W	6	
JSU3	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
L002,03	ELESE2R2KA	PEAKING COIL	2	
L008,09	EXCELDR35C	BEAD CHOKE	2	
L053	EXCELDR35C	BEAD CHOKE	1	
L055,56	ELESE2R2KA	PEAKING COIL	2	
L351	ELEBD101KA	PEAKING COIL	1	
L352	ELESE100JA	PEAKING COIL	1	
L353	ELESE1R0JA	PEAKING COIL	1	
L354	ELESE6R8JA	PEAKING COIL	1	
L371	ELEBD101KA	PEAKING COIL	1	
L372	ELESE100JA	PEAKING COIL	1	
L373	ELESE4R7KA	PEAKING COIL	1	
L374	ELESE6R8JA	PEAKING COIL	1	
L391	ELEBD101KA	PEAKING COIL	1	
L392	ELESE150JA	PEAKING COIL	1	
L393	ELESE6R8JA	PEAKING COIL	1	
L394	ELESE100JA	PEAKING COIL	1	
L414	ELESE470KA	PEAKING COIL	1	
L452,53	EXCELDR35C	BEAD CHOKE	2	
L503	EXCELSA35	BEAD CHOKE	1	
L505	EXCELSA24	BEAD CHOKE	1	
L506-08	EXCELDR25C	BEAD CHOKE	3	
L531	EXCELDR35C	BEAD CHOKE	1	
L555	ELH5L718	HORIZONTAL COIL	1	
L701	TALFP15B222K	INDUCTION COIL	1	
L702	ELC18B121F	CHOKE COIL	1	
L703	EXCELSA35	BEAD CHOKE	1	
L704	EXCELDR35C	BEAD CHOKE	1	
L815,16	EXCELSA39	BEAD CHOKE	2	
L818	EXCELSA35	BEAD CHOKE	1	
L820	EXCELSA24	BEAD CHOKE	1	
L822	EXCELDR35C	BEAD CHOKE	1	
L827,28	TALL08N220KA	INDUCTION COIL	2	G0C220K00013
L830	EXCELSA35	BEAD CHOKE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L851	EXCELSA35	BEAD CHOKE	1	
L857	EXCELSA35	BEAD CHOKE	1	
L861	TLUADTB470K	INDUCTION COIL	1	G0A470GA0017
L862	TALL08N101KA	INDUCTION COIL	1	G0A101EA0008
L870	ELF24V030A	LINE FILTER	1	X VERSION ⚠
L870	ELF24V018A	LINE FILTER	1	EX X VERSION
L872	ELF24V032B	LINE FILTER	1	X VERSION ⚠
L872	ELF24V019A	LINE FILTER	1	EX X VERSION
L873	ELF24V030A	LINE FILTER	1	X VERSION ⚠
L873	ELF24V018A	LINE FILTER	1	EX X VERSION
L874	EXCELSA35	BEAD CHOKE	1	
L880	EXCELSA35	BEAD CHOKE	1	
L883	TALL08N181KA	INDUCTION COIL	1	G0A181EA0008
L904	TLUABTA560K	PEAKING COIL	1	G0C560K00004
L951	EXCELSA35	BEAD CHOKE	1	
L953,54	EXCELSA35	BEAD CHOKE	2	
L956	EXCELSA35	BEAD CHOKE	1	
L1052	EXCELSA35	BEAD CHOKE	1	
L1101	ERDS2TC0	C 0 OHM, 1/4W	1	
L1103,04	TALC325T4R7M	CHIP INDUCTOR COIL	2	
L1106	ELESE4R7JA	PEAKING COIL	1	
L1107-10	TALC325T4R7M	CHIP INDUCTOR COIL	4	
L1115	TALC325T3R3M	CHIP INDUCTOR COIL	1	
L1116	TALC325T4R7M	CHIP INDUCTOR COIL	1	
L1300	TALC325T4R7M	CHIP INDUCTOR COIL	1	
L1301,02	TALC168T3R3K	CHIP INDUCTOR COIL	2	
L1303	TALC168T2R2K	CHIP INDUCTOR COIL	1	
L1304	TALC325T4R7M	CHIP INDUCTOR COIL	1	
L1305	TALC168T3R3K	CHIP INDUCTOR COIL	1	
L1306	TALC325T4R7M	CHIP INDUCTOR COIL	1	
L1307	ERDS2TC0	C 0 OHM, 1/4W	1	
L1308,09	ELJPA100KB	PEAKING COIL	2	G1C100KA0002
L1310,11	TALC325T4R7M	CHIP INDUCTOR COIL	2	
L1313-15	TALC325T4R7M	CHIP INDUCTOR COIL	3	
L1317	TALC168T6R8K	CHIP INDUCTOR COIL	1	
L1318,19	TALC325T4R7M	CHIP INDUCTOR COIL	2	
L1321	TALC325T4R7M	CHIP INDUCTOR COIL	1	
L1323,24	TALC325T4R7M	CHIP INDUCTOR COIL	2	
L1328	TALC325T4R7M	CHIP INDUCTOR COIL	1	
L2001,02	EXCELDR35C	BEAD CHOKE	2	
L2004	ELESE6R8KA	PEAKING COIL	1	
L2005	EXCELDR35C	BEAD CHOKE	1	
L2007,08	EXCELDR35C	BEAD CHOKE	2	
L2009,10	TALC325T4R7M	CHIP INDUCTOR COIL	2	
L2278	EXCELSA35	BEAD CHOKE	1	
L2302	TLS159054E	NETWORK COIL	1	G0A5R0H00003
L2303	EXCELSA35	BEAD CHOKE	1	
L2304	EXCELSA35	BEAD CHOKE	1	51 INCH MODEL
L2305	EXCELSA35	BEAD CHOKE	1	51 INCH MODEL
L2306	TLS159054E	NETWORK COIL	1	G0A5R0H00003
L2307	EXCELSA35	BEAD CHOKE	1	
L2308	EXCELSA35	BEAD CHOKE	1	51 INCH MODEL
L2309	EXCELSA35	BEAD CHOKE	1	51 INCH MODEL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L2310	**EXCELSA35**	**BEAD CHOKE**	**1**	
L2323	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2523-26	**ELESE6R8KA**	**PEAKING COIL**	**4**	
L2527	**EXCELSA35**	**BEAD CHOKE**	**1**	
L2703	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2704	**TALL08N330KA**	**INDUCTION COIL**	**1**	**G0A330GA0011**
L2705	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2706	**TAL10RP151LB**	**INDUCTION COIL**	**1**	**G0ZZ00001908**
L2707	**TALL08N470KA**	**INDUCTION COIL**	**1**	**G0A470GA0011**
L2708	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2709	**TLPF095**	**CHOKE COIL**	**1**	**G0A221GA0001**
L2710	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2712	**TAL10RP151LB**	**INDUCTION COIL**	**1**	**G0ZZ00001908**
L2713-15	**EXCELDR35C**	**BEAD CHOKE**	**3**	
L2716,17	**TALL08N330KA**	**INDUCTION COIL**	**2**	**G0A330GA0011**
L2718,19	**TLPF095**	**CHOKE COIL**	**2**	**G0A221GA0001**
L2722-25	**EXCELDR35C**	**BEAD CHOKE**	**4**	
L2727	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2729	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2730	**TALL08N680KA**	**INDUCTION COIL**	**1**	**G0A680GA0011**
L2732	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L2734,35	**EXCELDR35C**	**BEAD CHOKE**	**2**	
L2736-43	**EXCML45A910H**	**BEAD CHOKE**	**8**	
L2744	**EXCCL4532U1**	**BEAD CHOKE**	**1**	
L3002,03	**ERDS2TC0**	**C 0 OHM, 1/4W**	**2**	
L3004	**ELESE4R7KA**	**PEAKING COIL**	**1**	
L3050	**ELESE221KA**	**PEAKING COIL**	**1**	
L3403,04	**ELESE1R5KA**	**PEAKING COIL**	**2**	
L3415	**EXCELDR35C**	**BEAD CHOKE**	**1**	
L3420	**ELESE4R7JA**	**PEAKING COIL**	**1**	
L3424	**EXCELDR25C**	**BEAD CHOKE**	**1**	
L6719,20	**EXCELDR25C**	**BEAD CHOKE**	**2**	
L7001-06	**EXCELSA39**	**BEAD CHOKE**	**6**	
L7007,08	**ELJPA100KB**	**CHIP INDUCTOR**	**2**	
L7704	**ELESE100JA**	**PEAKING COIL**	**1**	
LB1	**TJS3A9900**	**10P CONNECTOR**	**1**	**K1KA10A00218**
LB2	**TJS3A9640**	**3P CONNECTOR**	**1**	**K1KA03A00171**
LC1101,02	**TLK212T256AL**	**EMI FILTER**	**2**	**J0HAAB000012**
LC1104-06	**TLK212T256AL**	**EMI FILTER**	**3**	**J0HAAB000012**
LC1107-09	**ELKE103FA**	**NOISE FILTER**	**3**	
LC1110-13	**TLK212T256AL**	**EMI FILTER**	**4**	**J0HAAB000012**
LC1114	**TLK20LFA224M**	**EMI FILTER**	**1**	**J0HABB000004 TX MODEL**
LC1115-20	**TLK20LFA103M**	**EMI FILTER**	**6**	
LC1121-24	**TLK20LFA224M**	**EMI FILTER**	**4**	**J0HABB000004**
LC1125-28	**TLK20LFA103M**	**EMI FILTER**	**4**	
LC1130-34	**TLK20LFA103M**	**EMI FILTER**	**5**	
LC1135	**TLK212T256AL**	**EMI FILTER**	**1**	**J0HAAB000012**
LC1136-39	**TLK20LFA103M**	**EMI FILTER**	**4**	
LC1140	**TLK212T256AL**	**EMI FILTER**	**1**	**J0HAAB000012**
LC1141-43	**TLK20LFA103M**	**EMI FILTER**	**3**	
LC1144-46	**TLK212T256AL**	**EMI FILTER**	**3**	**J0HAAB000012**
LC1147	**ELKE103FA**	**NOISE FILTER**	**1**	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LC1300-05	TLK20LFA224M	EMI FILTER	6	J0HABB000004
LC1309,10	TLK20LFA223M	EMI FILTER	2	J0HABB000003
LC1312	TLK20LFA223M	EMI FILTER	1	J0HABB000003
LC1314-19	TLK20LFA223M	EMI FILTER	6	J0HABB000003
LC1320	TLK20LFA224M	EMI FILTER	1	J0HABB000004
LC1321	TLK20LFA223M	EMI FILTER	1	J0HABB000003
LC1323	TLK20LFA224M	EMI FILTER	1	J0HABB000004
LC1324,25	TLK20LFA223M	EMI FILTER	2	J0HABB000003
LC1326-28	TLK20LFA224M	EMI FILTER	3	J0HABB000004
LC1329-33	ELKE103FA	NOISE FILTER	5	
LG1	TJS3A9680	7P CONNECTOR	1	K1KA07A00095
LG2	TJS3A9880	8P CONNECTOR	1	K1KA08A00179
LG3	TJS3A9910	11P CONNECTOR	1	K1KA11A00059
LG4	TJS3A9900	10P CONNECTOR	1	K1KA10A00218
LG5-G7	TJS3A9640	3P CONNECTOR	3	K1KA03A00171
LR1	TJS3A9910	11P CONNECTOR	1	K1KA11A00059
LR2	TJS3A9640	3P CONNECTOR	1	K1KA03A00171
M1	TJS169610	4P CONNECTOR	1	K1KA04B00005
M11	TJS3A9660	5P CONNECTOR	1	K1KA05A00138
M12	TJS3A9920	12P CONNECTOR	1	K1KA12A00156
M13	TJS3A9680	7P CONNECTOR	1	K1KA07A00095
P2	TJS169700	5P CONNECTOR	1	K1KA05A00090
P4	TJS3A9640	3P CONNECTOR	1	K1KA03A00171
P40	TJS3A9140	CONNECTOR	1	K1KA08B00121
P50	TJS3A8010	3P CONNECTOR	1	K1KB03B00009
P60	TJS3A9140	CONNECTOR	1	K1KA08B00121
P70	TJS3A9140	CONNECTOR	1	K1KA08B00121
Q002	2SB709A	TRANSISTOR	1	2SB0709A
Q052	2SB709A	TRANSISTOR	1	2SB0709A
Q353	2SC3942	TRANSISTOR	1	
Q354	2SC3790E	TRANSISTOR	1	B1BAAN000024
Q355,56	2SA1480	TRANSISTOR	2	
Q373	2SC3942	TRANSISTOR	1	
Q374	2SC3790E	TRANSISTOR	1	B1BAAN000024
Q375,76	2SA1480	TRANSISTOR	2	
Q393	2SC3942	TRANSISTOR	1	
Q394	2SC3790E	TRANSISTOR	1	B1BAAN000024
Q395,96	2SA1480	TRANSISTOR	2	
Q451	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q460-63	2SD601A-R	TRANSISTOR	4	2SD0601AR
Q501	2SK2962	FET	1	
Q551	2SC5612	TRANSISTOR	1	
Q552-54	2SC1473	TRANSISTOR	3	2SC14730E
Q701	2SK2538000LB	FET	1	
Q805	2SK2123000LB	FET	1	
Q849	2SA19610Q0HW	TRANSISTOR	1	
Q852	2SC3311A	TRANSISTOR	1	2SC3311AW
Q854	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q902,03	2SC3311A	TRANSISTOR	2	2SC3311AW

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q907	2SC3311A	TRANSISTOR	1	2SC3311AW
Q908	2SC1318A	TRANSISTOR	1	2SC1318AW
Q951	2SA720-R	TRANSISTOR	1	
Q952,53	2SC1318A	TRANSISTOR	2	2SC1318AW
Q954	2SA720-R	TRANSISTOR	1	
Q955	2SA1535A	TRANSISTOR	1	
Q956	2SC3944A	TRANSISTOR	1	
Q961	2SA720A	TRANSISTOR	1	
Q962	2SC1318A	TRANSISTOR	1	2SC1318AW
Q1003	2SC3311A	TRANSISTOR	1	2SC3311AW
Q1107	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q1115	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q1121-23	2SD601A-R	TRANSISTOR	3	2SD0601AR
Q1125	2SD601A-R	TRANSISTOR	1	2SD0601AR TX MODEL
Q1303-05	2SD601A-R	TRANSISTOR	3	2SD0601AR
Q1306	2SB709A	TRANSISTOR	1	2SB0709A
Q1307	XN5601	TRANSISTOR	1	XN05601
Q1308,09	2SB709A	TRANSISTOR	2	2SB0709A
Q1311-16	2SB709A	TRANSISTOR	6	2SB0709A
Q1318,19	2SB709A	TRANSISTOR	2	2SB0709A
Q1321,22	2SB709A	TRANSISTOR	2	2SB0709A
Q1325,26	2SB709A	TRANSISTOR	2	2SB0709A
Q1327	2SK198R	FET	1	2SK01980R
Q1328	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q1329	2SK198R	FET	1	2SK01980R
Q1333	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q1336	2SB709A	TRANSISTOR	1	2SB0709A
Q2002-05	2SB709A	TRANSISTOR	4	2SB0709A
Q2040,41	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q2043	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q2215,16	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q2301-06	2SD601A-R	TRANSISTOR	6	2SD0601AR
Q2307,08	2SB709A	TRANSISTOR	2	2SB0709A
Q2309-12	2SD601A-R	TRANSISTOR	4	2SD0601AR
Q2361	2SC3311A	TRANSISTOR	1	2SC3311AW
Q3006	2SB709A	TRANSISTOR	1	2SB0709A
Q3007	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q3011	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q3071,72	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q3130	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q3131	2SB709A	TRANSISTOR	1	2SB0709A
Q3132	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q3351	2SB1030A	TRANSISTOR	1	
Q3361	2SB1030A	TRANSISTOR	1	
Q3371	2SB1030A	TRANSISTOR	1	
Q3401	2SB709A	TRANSISTOR	1	2SB0709A
Q3402	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q7001,02	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q7101	XN1501	TRANSISTOR	1	XN01501
Q7102	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q7103	2SB709A	TRANSISTOR	1	2SB0709A
Q7701-03	2SD601A-R	TRANSISTOR	3	2SD0601AR
Q7704-06	2SB709A	TRANSISTOR	3	2SB0709A
Q7707-09	2SC3526H	TRANSISTOR	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q7710,11	**2SB709A**	**TRANSISTOR**	**2**	**2SB0709A**
Q7712	**2SC3757-R**	**TRANSISTOR**	**1**	**2SC37570R**
Q7713,14	**2SB709A**	**TRANSISTOR**	**2**	**2SB0709A**
Q7715	**2SD601A-R**	**TRANSISTOR**	**1**	**2SD0601AR**
Q7716	**2SB709A**	**TRANSISTOR**	**1**	**2SB0709A**
Q7717-19	**2SD601A-R**	**TRANSISTOR**	**3**	**2SD0601AR**
Q7720-25	**2SB709A**	**TRANSISTOR**	**6**	**2SB0709A**
Q9301	**2SD601A-R**	**TRANSISTOR**	**1**	**2SD0601AR**
Q9601	**2SB709A**	**TRANSISTOR**	**1**	**2SB0709A**
Q9602	**2SC4635**	**TRANSISTOR**	**1**	
Q9603	**2SD601A-R**	**TRANSISTOR**	**1**	**2SD0601AR**
R001	**ERJ6GEYJ393**	**M 39KOHM,J,1/10W**	**1**	
R002,03	**ERJ6GEYJ683**	**M 68KOHM,J,1/10W**	**2**	
R005	**ERJ6GEY0R00**	**M 0 OHM,J,1/10W**	**1**	
R008	**ERJ6GEYJ472**	**M 4.7KOHM,J,1/10W**	**1**	
R052,53	**ERJ6GEYJ683**	**M 68KOHM,J,1/10W**	**2**	
R055	**ERJ6GEY0R00**	**M 0 OHM,J,1/10W**	**1**	
R056	**ERJ6GEYJ393**	**M 39KOHM,J,1/10W**	**1**	
R057	**ERJ6GEY0R00**	**M 0 OHM,J,1/10W**	**1**	
R058	**ERJ6GEYJ101**	**M 100 OHM,J,1/10W**	**1**	
R059	**ERJ6GEY0R00**	**M 0 OHM,J,1/10W**	**1**	
R064	**ERJ6GEYJ472**	**M 4.7KOHM,J,1/10W**	**1**	
R355	**ERDS2TJ470**	**C 47 OHM, J,1/4W**	**1**	
R357	**ERG7ZJ272**	**M 2.7KOHM, J, 7W**	**1**	
R358	**ERDS2TJ473**	**C 47KOHM, J,1/4W**	**1**	
R359	**ERDS2TJ563**	**C 56KOHM, J,1/4W**	**1**	
R362	**ERC12GK331**	**S 330 OHM, 1/2W**	**1**	
R365	**ERDS2TJ821**	**C 820 OHM, J,1/4W**	**1**	
R366,67	**ERG12SJ101P**	**M 100 OHM, J,1/2W**	**2**	
R368,69	**ERDS1FJ330**	**C 33 OHM, J,1/2W**	**2**	
R372	**ERC12GK331**	**S 330 OHM, 1/2W**	**1**	
R373	**ERG7ZJ272**	**M 2.7KOHM, J, 7W**	**1**	
R375	**ERDS2TJ470**	**C 47 OHM, J,1/4W**	**1**	
R377	**ERDS2TJ104**	**C 100KOHM, J,1/4W**	**1**	
R378	**ERDS2TJ473**	**C 47KOHM, J,1/4W**	**1**	
R379	**ERDS2TJ563**	**C 56KOHM, J,1/4W**	**1**	
R382	**ERC12GK331**	**S 330 OHM, 1/2W**	**1**	
R383	**ERG7ZJ272**	**M 2.7KOHM, J, 7W**	**1**	
R385	**ERDS2TJ821**	**C 820 OHM, J,1/4W**	**1**	
R386,87	**ERG12SJ101P**	**M 100 OHM, J,1/2W**	**2**	
R388,89	**ERDS1FJ330**	**C 33 OHM, J,1/2W**	**2**	
R390	**ERDS2TJ821**	**C 820 OHM, J,1/4W**	**1**	
R391,92	**ERG12SJ101P**	**M 100 OHM, J,1/2W**	**2**	
R393,94	**ERDS1FJ330**	**C 33 OHM, J,1/2W**	**2**	
R395	**ERDS2TJ470**	**C 47 OHM, J,1/4W**	**1**	
R398	**ERDS2TJ473**	**C 47KOHM, J,1/4W**	**1**	
R399	**ERDS2TJ563**	**C 56KOHM, J,1/4W**	**1**	
R451,52	**ERX12SJ3R3**	**M 3.3 OHM, J,1/2W**	**2**	
R453	**ERJ6GEYJ393**	**M 39KOHM,J,1/10W**	**1**	
R454	**ERJ6GEYJ123**	**M 12KOHM,J,1/10W**	**1**	
R455	**ERG3FJS331D**	**M 330 OHM, J, 3W**	**1**	
R456	**ERJ6ENF9531**	**M9.53KOHM, 1/10W**	**1**	
R457	**ERJ6ENF7151**	**M7.15KOHM, 1/10W**	**1**	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R458	ERJ6ENF3481	M3.48KOHM, 1/10W	1	
R460	ERDS1FJ1R0	C 1 OHM, J,1/2W	1	
R461	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R462	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R463	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R464	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R465	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R466	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R467	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R468	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R469	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R470,71	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
R472-74	ERDS2TJ331	C 330 OHM, J,1/4W	3	
R475	ERJ6ENF3011	M3.01KOHM, 1/10W	1	
R476	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R477	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R478,79	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R501	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R502	ERDS2TJ680	C 68 OHM, J,1/4W	1	
R503	ERG3FJS680D	M 68 OHM, J, 3W	1	
R504	ERG1SJ102P	M 1KOHM, J, 1W	1	
R506	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R507	ERDS2TJ152	C 1.5KOHM, J,1/4W	1	
R510	ERDS1FJ1R5	C 1.5 OHM, J,1/2W	1	
R511	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R512	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R513	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R514	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R515,16	ERDS2TJ222	C 2.2KOHM, J,1/4W	2	
R517	ER0S2CKF4991	M4.99KOHM, F,1/4W	1	
R518	ERDS2TJ222	C 2.2KOHM, J,1/4W	1	
R519	ER050CKF4532	M4.53KOHM, F,1/2W	1	ERO50CKF4532
R520	ER0S2CKF3832	M38.3KOHM, F,1/4W	1	EROS2CKF3832
R521	ER0S2CKF6041	M6.04KOHM, F,1/4W	1	EROS2CKF6041
R522	ER0S2CKF3321	M3.32KOHM, F,1/4W	1	
R524	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R525	ERQ12HKR33	F0.33 OHM, K,1/2W	1	
R526	ERQ12HJ330	F 33 OHM, J,1/2W	1	
R527	ERJ6ENF2552	M25.5KOHM, 1/10W	1	
R528	ERJ6ENF8061	M8.06KOHM, 1/10W	1	
R529	ER0S2CKF4991	M4.99KOHM, F,1/4W	1	
R530	ERDS2TJ471	C 470 OHM, J,1/4W	1	
R531	ERDS2TJ275	C 2.7MOHM, J,1/4W	1	
R532	ERDS2TJ224	C 220KOHM, J,1/4W	1	
R533	EVMAASA00B34	CONTROL 30KOHMB	1	
R534	ERDS2TJ333	C 33KOHM, J,1/4W	1	
R540	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R545	ERG1SJ100P	M 10 OHM, J, 1W	1	
R647	ERJ6GEYJ680	M 68 OHM,J,1/10W	1	
R652,53	ERJ6GEYJ331	M 330 OHM,J,1/10W	2	
R654	TAJAAH0101JV	M 100 OHM,J,1/16W	1	D0GB101JA006
R655-57	ERJ6GEYJ122	M 1.2KOHM,J,1/10W	3	
R658	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R701	ERDS1FJ680	C 68 OHM, J,1/2W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R703	ERF5AK4R7	W 4.7 OHM, K, 5W	1	
R779	ERJ6ENF1152	M11.5KOHM, 1/10W	1	
R780	ERJ6GEYJ822	M 8.2KOHM,J,1/10W	1	
R781	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R782	ERDS2TJ391	C 390 OHM, J,1/4W	1	
R783	ERJ6GEYJ682	M 6.8KOHM,J,1/10W	1	
R801	ERF10ZK4R7	W 4.7 OHM, Z, 10W	1	
R803,04	ERG2FJS393D	M 39K OHM, J, 2W	2	
R806	ERX12SJR12P	M 12 OHM, J,1/2W	1	
R810	ERX12SJR12P	M 12 OHM, J,1/2W	1	
R815	ERD75TAJ825	C 8.2MOHM, J,3/4W	1	⚠
R819	ERDS2TJ681	C 680 OHM, J,1/4W	1	
R820	ERDS2TJ562	C 5.6KOHM, J,1/4W	1	
R821	ERDS2TJ680	C 68 OHM, J,1/4W	1	
R822	ERDS2TJ820	C 82 OHM, J,1/4W	1	
R832	ERDS1FJ391	C 390 OHM, J,1/2W	1	
R836,37	ERDS2TJ152	C 1.5KOHM, J,1/4W	2	
R845	ERX1SJR27	M 0.27 OHM, J, 1W	1	
R854	ERDS2TJ221	C 220 OHM, J,1/4W	1	
R861	ERG3FJS470D	M 47 OHM, J, 3W	1	
R867	ERG3FJS153D	M 15KOHM, J, 3W	1	
R870	ERC12ZGK335	S 3.3MOHM, K,1/2W	1	⚠
R871	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R872	ERJ6GEYJ154	M 150KOHM,J,1/10W	1	
R873	ERDS1FJ102	C 1KOHM, J,1/2W	1	
R877	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R880	ERDS2TJ183	C 18KOHM, J,1/4W	1	
R881	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R882	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R883	ERG1SJ104P	M 100KOHM, J, 1W	1	
R884	ERDS2TJ223	C 22KOHM, J,1/4W	1	
R885,86	ERX1SJ1R0	M 1.0 OHM, J, 1W	2	
R890	ERDS1FJ102	C 1KOHM, J,1/2W	1	
R891	ERDS1FJ122	C 1.2KOHM, J,1/2W	1	
R901	ERDS1FJ821	C 820 OHM, J,1/2W	1	
R902	ERDS2TJ683	C 68KOHM, J,1/4W	1	
R903	ERDS2TJ153	C 15KOHM, J,1/4W	1	
R904,05	ERDS2TJ472	C 4.7KOHM, J,1/4W	2	
R906	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R907	ERDS2TJ151	C 150 OHM, J,1/4W	1	
R908	ERDS2TJ272	C 2.7KOHM, J,1/4W	1	
R914	ERDS2TJ562	C 5.6KOHM, J,1/4W	1	
R915	ERDS2TJ182	C 1.8KOHM, J,1/4W	1	
R916	ERDS2TJ391	C 390 OHM, J,1/4W	1	
R917	ERDS2TJ470	C 47 OHM, J,1/4W	1	
R920	ERDS2TJ181	C 180 OHM, J,1/4W	1	
R922,23	ERDS2TJ103	C 10KOHM, J,1/4W	2	
R951	ERDS2TJ271	C 270 OHM, J,1/4W	1	
R952	ERDS1FJ152	C 1.5KOHM, J,1/2W	1	
R953	ERDS2TJ271	C 270 OHM, J,1/4W	1	
R954	ERDS1FJ152	C 1.5KOHM, J,1/2W	1	
R955	ERDS2TJ271	C 270 OHM, J,1/4W	1	
R956	ERDS1FJ152	C 1.5KOHM, J,1/2W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R960	ERQ14AJ100P	F 10 OHM, J,1/4W	1	
R964	ERDS2FJ122	C 1.2KOHM, 1/4W	1	
R965	ERDS2TJ683	C 68KOHM, J,1/4W	1	
R966	ERG1SJ271	M 270 OHM, J, 1W	1	
R967	ERDS2TJ683	C 68KOHM, J,1/4W	1	
R968	ERDS2TJ122	C 1.2KOHM, J,1/4W	1	
R969	ERDS1FJ390	C 39 OHM, J,1/2W	1	
R970,71	ERDS2TJ8R2	C 8.2 OHM, J,1/4W	2	
R972	ERDS1FJ390	C 39 OHM, J,1/2W	1	
R973	ERDS1FJ470	C 47 OHM, J,1/2W	1	
R975-77	ERG1SJ271	M 270 OHM, J, 1W	3	
R978	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R1043	ERDS2TJ682	C 6.8KOHM, J,1/4W	1	
R1044	ERDS2TJ123	C 12KOHM, J,1/4W	1	
R1045	ERDS2TJ223	C 22KOHM, J,1/4W	1	
R1046	ERDS2TJ683	C 68KOHM, J,1/4W	1	
R1050	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R1051	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1081	ERDS2TJ332	C 3.3KOHM, J,1/4W	1	
R1082	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R1083,84	ERDS2TJ101	C 100 OHM, J,1/4W	2	
R1085	ERDS2TJ221	C 220 OHM, J,1/4W	1	
R1101,02	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	2	
R1103	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R1104	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R1105	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R1106	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1107-10	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	4	
R1111,12	TAJAAH0101JV	M 100 OHM,J,1/16W	2	D0GB101JA006
R1113	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1114	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1115	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R1116	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	
R1117	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1118-21	TAJAAH0101JV	M 100 OHM,J,1/16W	4	D0GB101JA006
R1122-25	ERJ3GEYJ103	M 10KOHM,J,1/16W	4	
R1126	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1127	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R1128	ERJ3GEYJ273	M 27KOHM,J,1/16W	1	
R1131	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R1132	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R1134	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R1143	TAJAAH0101JV	M 100 OHM,J,1/16W	1	D0GB101JA006
R1145	ERJ3GEYJ391	M 390 OHM,J,1/16W	1	D0GB391JA002 TX MODEL
R1146	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1147	TAJAAH0101JV	M 100 OHM,J,1/16W	1	D0GB101JA006 TX MODEL
R1153	ERJ3GEYJ563	M 56KOHM,J,1/16W	1	
R1154	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1155	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R1156	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1157,58	TAJAAH0101JV	M 100 OHM,J,1/16W	2	D0GB101JA006
R1159	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1160	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	1	
R1161	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1162	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R1164	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R1166	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R1168	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1169	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R1170	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1172	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1177	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1178	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R1179	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	1	
R1180	ERJ3GEYJ392	M 3.9KOHM,J,1/16W	1	
R1181	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1188-93	TAJAAH0101JV	M 100 OHM,J,1/16W	6	D0GB101JA006
R1194	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R1195	TAJAAH0101JV	M 100 OHM,J,1/16W	1	D0GB101JA006
R1196	EXB38V680J	RESISTOR ARRAY	1	
R1202	EXB38V680J	RESISTOR ARRAY	1	
R1205	EXB38V680J	RESISTOR ARRAY	1	
R1209	EXB38V680J	RESISTOR ARRAY	1	
R1214	EXB38V680J	RESISTOR ARRAY	1	
R1217	EXB38V680J	RESISTOR ARRAY	1	
R1221	EXB38V680J	RESISTOR ARRAY	1	
R1225	EXB38V680J	RESISTOR ARRAY	1	
R1232,33	EXB38V680J	RESISTOR ARRAY	2	
R1236	EXB38V680J	RESISTOR ARRAY	1	
R1239,40	ERJ6GEYJ223	M 22KOHM,J,1/10W	2	
R1241	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R1242	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R1243	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R1249,50	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R1251	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1253	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R1255	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	TX MODEL
R1256	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	TX MODEL
R1257	ERJ3GEY0R00	M 0 OHM, 1/16W	1	TX MODEL
R1258	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	TX MODEL
R1264	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1293,94	ERJ6ENF3901	M 3.9KOHM, 1/10W	2	
R1301	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1302	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1303	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R1304	ERJ3EKF7151	M 7.15K OHM,1/16W	1	
R1305	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R1306	ERJ6ENF1200	M 120 OHM, 1/10W	1	
R1307	ERJ3EKF6801	M 6.8K OHM, 1/16W	1	
R1308	ERJ3EKF3901	M 3.9K OHM, 1/16W	1	
R1309,10	ERJ6ENF3741	M3.74KOHM, 1/10W	2	
R1311	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R1312	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R1313,14	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	2	
R1315	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R1316	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R1317	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R1318	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1319	ERJ6ENF5600	M 560 OHM, 1/10W	1	
R1320	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1321	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	1	
R1322	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R1323	ERJ6ENF47R0	M 47 OHM, 1/10W	1	
R1324	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	1	
R1326	ERJ6ENF47R0	M 47 OHM, 1/10W	1	
R1327	ERJ6ENF1500	M 150 OHM, 1/10W	1	
R1328	ERJ3GEYJ392	M 3.9KOHM,J,1/16W	1	
R1329	ERJ6ENF47R0	M 47 OHM, 1/10W	1	
R1330	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R1331	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1332	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R1335	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R1338	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1339	ERJ3GEYJ121	M 120 OHM,J,1/16W	1	
R1343	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1344	ERJ6ENF1500	M 150 OHM, 1/10W	1	
R1345	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1346	ERJ3GEYJ181	M 180 OHM,J,1/16W	1	
R1347	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1348	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R1349	ERJ6ENF2701	M 2.7KOHM, 1/10W	1	
R1350	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R1351	ERJ6ENF2701	M 2.7KOHM, 1/10W	1	
R1352	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R1353	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R1354	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R1355	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R1356	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R1357	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R1358	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1359	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1360	ERJ6ENF5601	M 5.6KOHM, 1/10W	1	
R1361	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	1	
R1362	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1363-65	TAJAAH0101JV	M 100 OHM,J,1/16W	3	D0GB101JA006
R1366	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1367	ERJ6ENF3000	M 300 OHM, 1/10W	1	
R1368	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R1369	ERJ3GEYJ823	M 82KOHM,J,1/16W	1	
R1370	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1371	ERJ3GEYJ273	M 27KOHM,J,1/16W	1	
R1372	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1373	ERJ3GEYJ273	M 27KOHM,J,1/16W	1	
R1374	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1375,76	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R1377	ERJ3GEYJ224	M 220KOHM,J,1/16W	1	
R1379	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1380	ERJ3GEYJ273	M 27KOHM,J,1/16W	1	
R1381	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1382	ERJ3GEYJ273	M 27KOHM,J,1/16W	1	
R1383	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R1384	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1385	TAJAAH0470JV	M 47 OHM,J,1/16W	1	D0GB470JA006
R1387	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1388	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1389	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R1390	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1391	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R1392	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1393	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R1394	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R1395	ERJ6ENF6800	M 680 OHM, 1/10W	1	
R1396	ERJ6ENF3301	M 3.3KOHM, 1/10W	1	
R1402	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R1403	ERJ3GEYJ181	M 180 OHM,J,1/16W	1	
R1406	TAJAAH0101JV	M 100 OHM,J,1/16W	1	D0GB101JA006
R1407	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R1408	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	1	
R1409	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R1413	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1415	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1417,18	ERJ6ENF56R0	M 56 OHM, 1/10W	2	
R1419	ERJ6ENF2000	M 200 OHM, 1/10W	1	
R1425,26	ERJ6ENF9310	M 931 OHM, 1/10W	2	
R1429	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1430	ERJ6GEYJ821	M 820 OHM,J,1/10W	1	
R1431	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1433	ERJ6ENF47R0	M 47 OHM, 1/10W	1	
R1434,35	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
R1436	ERJ6ENF47R0	M 47 OHM, 1/10W	1	
R1437	ERJ6ENF1500	M 150 OHM, 1/10W	1	
R1440	TAJAAH0101JV	M 100 OHM,J,1/16W	1	D0GB101JA006
R1443	ERJ6ENF47R0	M 47 OHM, 1/10W	1	
R1447,48	ERJ6ENF1500	M 150 OHM, 1/10W	2	
R1451	ERJ6ENF5490	M 549 OHM, 1/10W	1	
R1452	ERJ6ENF4700	M 470 OHM, 1/10W	1	
R1453	ERJ3GEYJ180	M 18 OHM,J,1/16W	1	
R1454	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R1455	ERJ3GEYJ391	M 390 OHM,J,1/16W	1	D0GB391JA002
R1457	ERJ6GEYJ124	M 120KOHM,J,1/10W	1	
R1458	ERJ6ENF6201	M 6.2KOHM, 1/10W	1	
R1459	ERJ6ENF4751	M4.75KOHM, 1/10W	1	
R1460	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1465	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R1466	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R1467	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R1468	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R1471	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R1473	ERJ6GEYJ683	M 68KOHM,J,1/10W	1	
R1474	ERJ6GEYJ274	M 270KOHM,J,1/10W	1	
R1475	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R1476	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R1477	ERJ3GEYJ823	M 82KOHM,J,1/16W	1	
R1478	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1480,81	ERJ3GEYJ471	M 470 OHM,J,1/16W	2	
R1482	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1483	ERJ6GEYJ394	M 390KOHM,J,1/10W	1	
R1485	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R1492	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R1499	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2004	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R2006-08	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	3	
R2015	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R2019	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R2025,26	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	2	
R2030,31	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
R2033-36	ERJ6GEY0R00	M 0 OHM,J,1/10W	4	
R2039,40	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	
R2041	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2042	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2043,44	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R2045	ERJ6GEYJ122	M 1.2KOHM,J,1/10W	1	
R2051	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2255	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2256,57	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R2258	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2290	ERDS2TJ562	C 5.6KOHM, J,1/4W	1	
R2291	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R2292,93	ERDS2TJ222	C 2.2KOHM, J,1/4W	2	
R2294,95	ERDS2TJ103	C 10KOHM, J,1/4W	2	
R2296	ERDS2TJ562	C 5.6KOHM, J,1/4W	1	
R2297	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R2301	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2303,04	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R2307,08	ERD25FJ2R2	C 2.2 OHM, J,1/4W	2	
R2309,10	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R2311	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R2312	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R2315	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R2316	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	1	
R2317	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2318	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R2319	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R2321,22	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	2	
R2324-26	ERJ6GEY0R00	M 0 OHM,J,1/10W	3	
R2327	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2328	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	1	
R2330	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R2331	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2333	ER0S2CKF4702	M 47KOHM, F,1/4W	1	EROS2CKF4702
R2335	ERJ6ENF6802	M 68KOHM, 1/10W	1	
R2336	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2337	ERJ6ENF1202	M 12KOHM, 1/10W	1	
R2338,39	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	
R2340-42	ERJ6GEYJ103	M 10KOHM,J,1/10W	3	
R2343	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R2344	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2345	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R2346,47	ERJ6GEYJ223	M 22KOHM,J,1/10W	2	
R2348	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R2349	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2350,51	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R2359	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R2362,63	ERDS2TJ103	C 10KOHM, J,1/4W	2	
R2367	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2370	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R2372	ERJ6ENF6202	M 62KOHM, 1/10W	1	
R2373	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2375	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R2379	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2380,81	ERDS2TJ222	C 2.2KOHM, J,1/4W	2	
R2382-84	ERJ6GEYJ103	M 10KOHM,J,1/10W	3	
R2391	ERJ6GEYJ183	M 18KOHM,J,1/10W	1	
R2392	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R2397	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R2423	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2455	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R2483	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R2498	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R2499	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2562	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R2613	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R2724	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2725	ERJ6ENF1301	M 1.3KOHM, 1/10W	1	
R2726	ERJ6ENF4121	M4.12KOHM, 1/10W	1	
R2727	ERJ6ENF2151	M2.15KOHM, 1/10W	1	
R2728	ERJ6ENF1201	M 1.2KOHM, 1/10W	1	
R2731	ERJ6ENF2151	M2.15KOHM, 1/10W	1	
R2732	ERJ6ENF1201	M 1.2KOHM, 1/10W	1	
R3012,13	ERJ6GEYJ221	M 220 OHM,J,1/10W	2	
R3014	ERJ8ENF75R0	M 75 OHM, 1/8W	1	
R3015	ERJ6GEYJ184	M 180KOHM,J,1/10W	1	
R3016	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R3017-20	ERJ6GEYJ221	M 220 OHM,J,1/10W	4	
R3021	ERJ6GEYJ184	M 180KOHM,J,1/10W	1	
R3022,23	ERJ6GEYJ221	M 220 OHM,J,1/10W	2	
R3024	ERJ8ENF75R0	M 75 OHM, 1/8W	1	
R3025-27	ERJ6GEYJ221	M 220 OHM,J,1/10W	3	
R3028	ERJ8ENF75R0	M 75 OHM, 1/8W	1	
R3029,30	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
R3031	ERJ6GEYJ683	M 68KOHM,J,1/10W	1	
R3033,34	ERJ6GEYJ221	M 220 OHM,J,1/10W	2	
R3037	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R3038	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R3044	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R3049	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R3050	ERJ6ENF5600	M 560 OHM, 1/10W	1	
R3051	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R3052,53	ERJ6GEYJ221	M 220 OHM,J,1/10W	2	
R3054	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R3055-58	ERJ6ENF75R0	M 75 OHM, 1/10W	4	
R3059	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R3062	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R3065	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3067	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R3068	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R3071	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R3073	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R3074	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R3076	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R3077-79	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	3	
R3084-90	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	7	
R3091-96	ERJ6ENF75R0	M 75 OHM, 1/10W	6	
R3116	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R3122	ERJ6GEYJ683	M 68KOHM,J,1/10W	1	
R3123	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R3124	ERJ6GEYJ681	M 680 OHM,J,1/10W	1	
R3125	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R3126	ERJ6GEYJ121	M 120 OHM,J,1/10W	1	
R3127	ERJ6GEYJ390	M 39 OHM,J,1/10W	1	
R3128	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R3129,30	ERJ6GEYJ561	M 560 OHM,J,1/10W	2	
R3326	ERJ6ENF6801	M 6.8KOHM, 1/10W	1	
R3355	ERDS2TJ392	C 3.9KOHM, J,1/4W	1	
R3356	ERDS2TJ822	C 8.2KOHM, J,1/4W	1	
R3357	ERDS2TJ392	C 3.9KOHM, J,1/4W	1	
R3365	ERDS2TJ392	C 3.9KOHM, J,1/4W	1	
R3366	ERDS2TJ822	C 8.2KOHM, J,1/4W	1	
R3367	ERDS2TJ392	C 3.9KOHM, J,1/4W	1	
R3375	ERDS2TJ392	C 3.9KOHM, J,1/4W	1	
R3376	ERDS2TJ822	C 8.2KOHM, J,1/4W	1	
R3377	ERDS2TJ392	C 3.9KOHM, J,1/4W	1	
R3421	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R3422	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R3455	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R3456	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R3457	ERJ6GEYJ750	M 75 OHM,J,1/10W	1	
R3458	ERJ8GEYJ331	M 330 OHM, J,1/8W	1	
R6704	ERF2AK5R6	W 5.6 OHM, K, 2W	1	
R7008	ERJ6GEYJ273	M 27KOHM,J,1/10W	1	
R7009	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R7010	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7011	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R7012	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7013	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R7014	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7015	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R7016	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7017	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R7018	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7019	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R7020	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7021	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R7022	ERJ6GEYJ273	M 27KOHM,J,1/10W	1	
R7023	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R7024-29	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	6	
R7030	ERG2FJS121D	M 120 OHM, J, 2W	1	
R7031-33	ERG2FJS820D	M 82 OHM, J, 2W	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7034	ERG2FJS121D	M 120 OHM, J, 2W	1	
R7035	ERG2FJS820D	M 82 OHM, J, 2W	1	
R7036-39	ER0S2CKF10R0	M 10 OHM, F,1/4W	4	
R7040-47	ER0S2CKF20R0	M 20 OHM, F,1/4W	8	EROS2CKF20R0
R7048-51	ER0S2CKF10R0	M 10 OHM, F,1/4W	4	
R7052-59	ER0S2CKF20R0	M 20 OHM, F,1/4W	8	EROS2CKF20R0
R7060-63	ER0S2CKF10R0	M 10 OHM, F,1/4W	4	
R7064-71	ER0S2CKF20R0	M 20 OHM, F,1/4W	8	EROS2CKF20R0
R7080	ERX1SJR39	M0.39 OHM, J, 1W	1	
R7085	ERX1SJR39	M0.39 OHM, J, 1W	1	
R7090-95	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	6	
R7101-03	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	3	
R7104,05	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R7106-08	ERJ6ENF4702	M 47KOHM, 1/10W	3	
R7109	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R7111	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7114-17	ERJ6ENF4702	M 47KOHM, 1/10W	4	
R7118-21	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	4	
R7122	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7123	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R7124,25	ERJ6GEYJ330	M 33 OHM,J,1/10W	2	
R7126	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7127	ERJ6ENF6200	M 620 OHM, 1/10W	1	
R7128	ERJ6ENF3001	M 3KOHM, 1/10W	1	
R7129	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7130	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R7131	ERJ6GEYJ151	M 150 OHM,J,1/10W	1	
R7134,35	ERJ6GEYJ151	M 150 OHM,J,1/10W	2	
R7141	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R7142	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7143	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R7144	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7145	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R7146	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7147	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R7148	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7149	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R7150	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7151	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R7152	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7153	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R7154	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7155	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R7157,58	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R7163,64	ERJ6GEYJ330	M 33 OHM,J,1/10W	2	
R7165-69	ERJ6GEYJ103	M 10KOHM,J,1/10W	5	
R7170-72	ERJ6GEYJ330	M 33 OHM,J,1/10W	3	
R7185	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7186	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R7187	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7188	ERJ6ENF82R0	M 82 OHM, 1/10W	1	43 INCH MODEL
R7188	ERJ6GEYJ181	M 180 OHM,J,1/10W	1	51 INCH MODEL
R7189	ERJ6ENF2700	M 270 OHM, 1/10W	1	43 INCH MODEL
R7189	ERJ6GEYJ271	M 270 OHM,J,1/10W	1	51 INCH MODEL

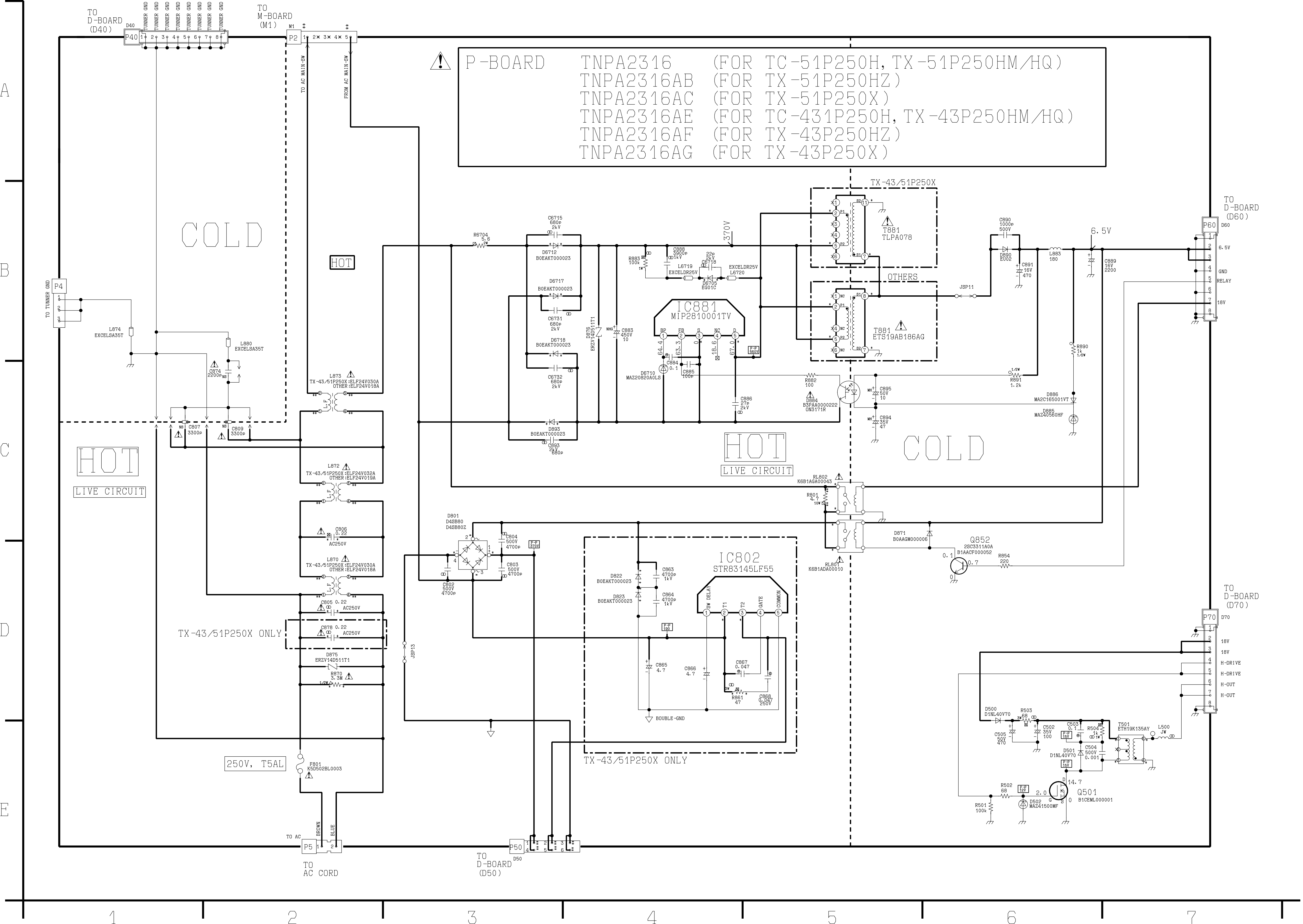
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7190	ERG1SJ820	M 82 OHM, J, 1W	1	
R7191	ERJ6ENF1202	M 12KOHM, 1/10W	1	
R7194,95	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	2	
R7196-98	ERJ6GEYJ271	M 270 OHM,J,1/10W	3	
R7701-03	ERJ6GEYJ221	M 220 OHM,J,1/10W	3	
R7705	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7707	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7709	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7716	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7717-19	ERJ6GEY0R00	M 0 OHM,J,1/10W	3	
R7724-26	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	3	
R7727-29	ERJ6GEYJ221	M 220 OHM,J,1/10W	3	
R7733	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R7734	ER0S2CKF2490	M24.9 OHM, F,1/4W	1	EROS2CKF2490
R7735	ER0S2CKF1500	M 150 OHM, F,1/4W	1	
R7736	ERJ6GEYJ330	M 33 OHM,J,1/10W	1	
R7737	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R7738	ER0S2CKF2490	M24.9 OHM, F,1/4W	1	EROS2CKF2490
R7739	ER0S2CKF1500	M 150 OHM, F,1/4W	1	
R7740	ERJ6GEYJ330	M 33 OHM,J,1/10W	1	
R7741	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R7742	ER0S2CKF2490	M24.9 OHM, F,1/4W	1	EROS2CKF2490
R7743	ER0S2CKF1500	M 150 OHM, F,1/4W	1	
R7744	ERJ6GEYJ330	M 33 OHM,J,1/10W	1	
R7745	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R7746-48	ERJ6ENF1000	M 100 OHM, 1/10W	3	
R7750-52	ERJ6GEYJ103	M 10KOHM,J,1/10W	3	
R7753	ERJ6ENF3901	M 3.9KOHM, 1/10W	1	
R7754	ERJ6ENF4700	M 470 OHM, 1/10W	1	
R7755	ERJ6ENF2000	M 200 OHM, 1/10W	1	
R7756	ERJ6ENF1000	M 100 OHM, 1/10W	1	
R7757	ERJ6ENF1201	M 1.2KOHM, 1/10W	1	
R7758-61	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R7762	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R7763	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7765	ERJ6GEYJ682	M 6.8KOHM,J,1/10W	1	
R7766,67	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
R7771	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R7772	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R7773	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R7776-78	ERJ6GEYJ471	M 470 OHM,J,1/10W	3	
R7779	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R7780	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R7781	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R7782	ERJ6ENF39R0	M 39 OHM, 1/10W	1	43 INCH MODEL
R7782	ERJ6ENF47R0	M 47 OHM, 1/10W	1	51 INCH MODEL
R7788	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R7789	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7790	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7791	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7792	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7793	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R7794	ERJ6GEYJ561	M 560 OHM,J,1/10W	1	
R7795-97	ER0S2CKF1500	M 150 OHM, F,1/4W	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7801	ERJ6ENF2700	M 270 OHM, 1/10W	1	
R7802	ERJ6ENF3300	M 330 OHM, 1/10W	1	
R7803	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R7804	ERJ6ENF6800	M 680 OHM, 1/10W	1	
R7805	ERJ6ENF2700	M 270 OHM, 1/10W	1	
R7806	ERJ6ENF3300	M 330 OHM, 1/10W	1	
R7807	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R7808	ERJ6ENF6800	M 680 OHM, 1/10W	1	
R7809	ERJ6ENF2700	M 270 OHM, 1/10W	1	
R7810	ERJ6ENF3300	M 330 OHM, 1/10W	1	
R7811	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R7812	ERJ6ENF6800	M 680 OHM, 1/10W	1	
R9301	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R9305	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R9318	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	1	
R9319	ERJ6GEYJ151	M 150 OHM,J,1/10W	1	
R9320	ERJ6GEYJ393	M 39KOHM,J,1/10W	1	
R9602	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R9603	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R9604-06	ERJ6GEYJ102	M 1KOHM,J,1/10W	3	
R9607	ERG2FJS222D	M 2.2KOHM, J, 2W	1	
R9608	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R9609	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R9610	ERJ6ENF1501	M 1.5KOHM, 1/10W	1	
R9611-15	ERG2FJS333D	M 33KOHM, J, 2W	5	
R9616	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R9617	ERJ6ENF2801	M 2.8KOHM, 1/10W	1	
R9618	ERJ6ENF2741	M2.74KOHM, 1/10W	1	
R9619	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R9620	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R9621	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R9622	ERC12GK103	S 10KOHM, K,1/2W	1	
R9623	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R9624	ERJ6ENF1500	M 150 OHM, 1/10W	1	
R9625	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R9626	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R9627	ERJ6ENF2742	M27.4KOHM, 1/16W	1	
RL801	K6B1ADA00010	RELAY	1	⚠
RL802	TSEH8011	RELAY	1	K6B1AGA00043 ⚠
RL3401	TSEH8017	SWITCH	1	K6B2CFA00015
RM1001	PNA4601M04TV	REMOTE CONTROL RECEIVER	1	
RTL	TZTNP010GAV	CIRCUIT BOARD A	1	⚠TX-51P250HM/HQ/HZ/X
RTL	TZTNP010GEV	CIRCUIT BOARD A	1	⚠TC-51P250H
RTL	TZTNP010GQV	CIRCUIT BOARD A	1	⚠TC-43P250H
RTL	TZTNP020GLV	CIRCUIT BOARD A	1	⚠ TX-43P250HM/HQ/HZ/X
RTL	TZTNP030GAV	CIRCUIT BOARD D	1	⚠TC-51P250H, TX-51P250HM /HQ
RTL	TZTNP010GCV	CIRCUIT BOARD D	1	⚠TX-51P250HZ

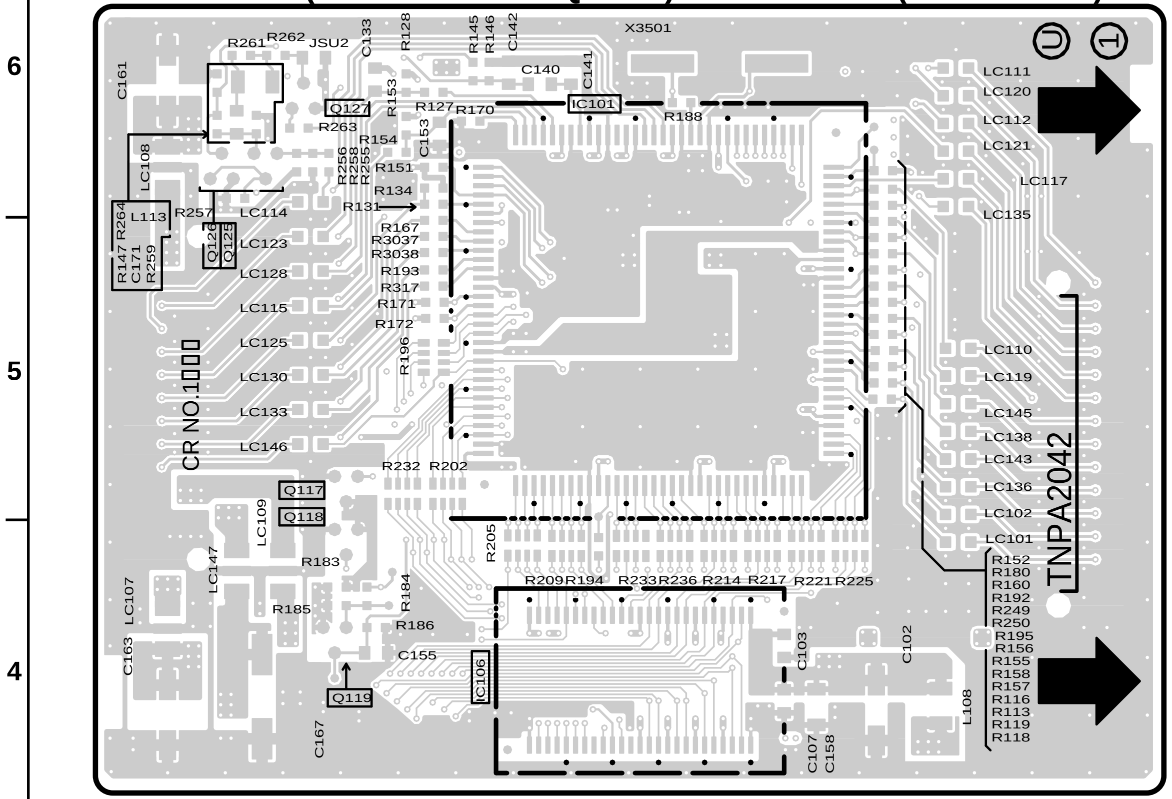
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RTL	TZTNP010GDV	CIRCUIT BOARD D	1	⚠TX-51P250X
RTL	TZTNP010GLV	CIRCUIT BOARD D	1	⚠TC-43P250H, TX-43P250HM /HQ
RTL	TZTNP010GNV	CIRCUIT BOARD D	1	⚠TX-43P250HZ
RTL	TZTNP010GPV	CIRCUIT BOARD D	1	⚠ TX-43P250X
RTL	TNPA1970AG	CIRCUIT BOARD H	1	⚠
RTL	TNPA2316	CIRCUIT BOARD P	1	⚠TC-51P250H, TX-51P250HM /HQ
RTL	TNPA2316 AB	CIRCUIT BOARD P	1	⚠TX-51P250HZ
RTL	TNPA2316 AC	CIRCUIT BOARD P	1	⚠TX-51P250X
RTL	TNPA2316 AE	CIRCUIT BOARD P	1	⚠TC-43P250H, TX-43P250HM /HQ
RTL	TNPA2316 AF	CIRCUIT BOARD P	1	⚠TX-43P250HZ
RTL	TNPA2316AG	CIRCUIT BOARD P	1	⚠TX-43P250X
RTL	TZTNP020GAV	CIRCUIT BOARD U	1	⚠TX-51P250HM/HQ/HZ/X
RTL	TZTNP020GEV	CIRCUIT BOARD U	1	⚠TC-51P250H
RTL	TNPA2042AV	CIRCUIT BOARD U	1	⚠TC-43P250H
RTL	TNPA2042AU	CIRCUIT BOARD U	1	⚠ TX-43P250HM/HQ/HZ/X
RTL	TXNDG10GAV	CIRCUIT BOARD DG	1	⚠
RTL	TNPA2332	CIRCUIT BOARD LR	1	⚠ 51 INCH MODEL
RTL	TNPA2332AC	CIRCUIT BOARD LR	1	⚠43 INCH MODEL
RTL	TNPA2333	CIRCUIT BOARD LG	1	⚠ 51 INCH MODEL
RTL	TNPA2333AC	CIRCUIT BOARD LG	1	⚠43 INCH MODEL
RTL	TNPA2334	CIRCUIT BORD LB	1	⚠ 51 INCH MODEL
RTL	TNPA2334AC	CIRCUIT BOARD LB	1	⚠43 INCH MODEL
RTL	TNPA2315	CIRCUIT BOARD M	1	⚠
S840	ESB92S11B	SWITCH	1	⚠
S1003-07	EVQ23405R	SWITCH	5	EVQ81F05R
T501	ETH19K135AY	H DRIVE TRANS	1	
T551	KFT7AA334F1	FLYBACK TRANS	1	⚠
T801	ETS42AE2X6AC	POWER TRANS	1	⚠
T881	TLPA078	REMOCON TRANS	1	X VERSION ⚠
T882	ETS19AB186AG	REMOCON TRANS	1	EX X VERSION ⚠
TNR001	ENGF9103G	TUNER	1	⚠
TNR002	ENG39607G	TUNER	1	⚠
U1,U2	K1KB30A00092	30P CONNECTOR	2	
X1301,02	TSSA171	CRYSTAL	2	
X2101	TSSA128	CRYSTAL	1	H0D184500008
X3501	H0J600400006	CRYSTAL	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

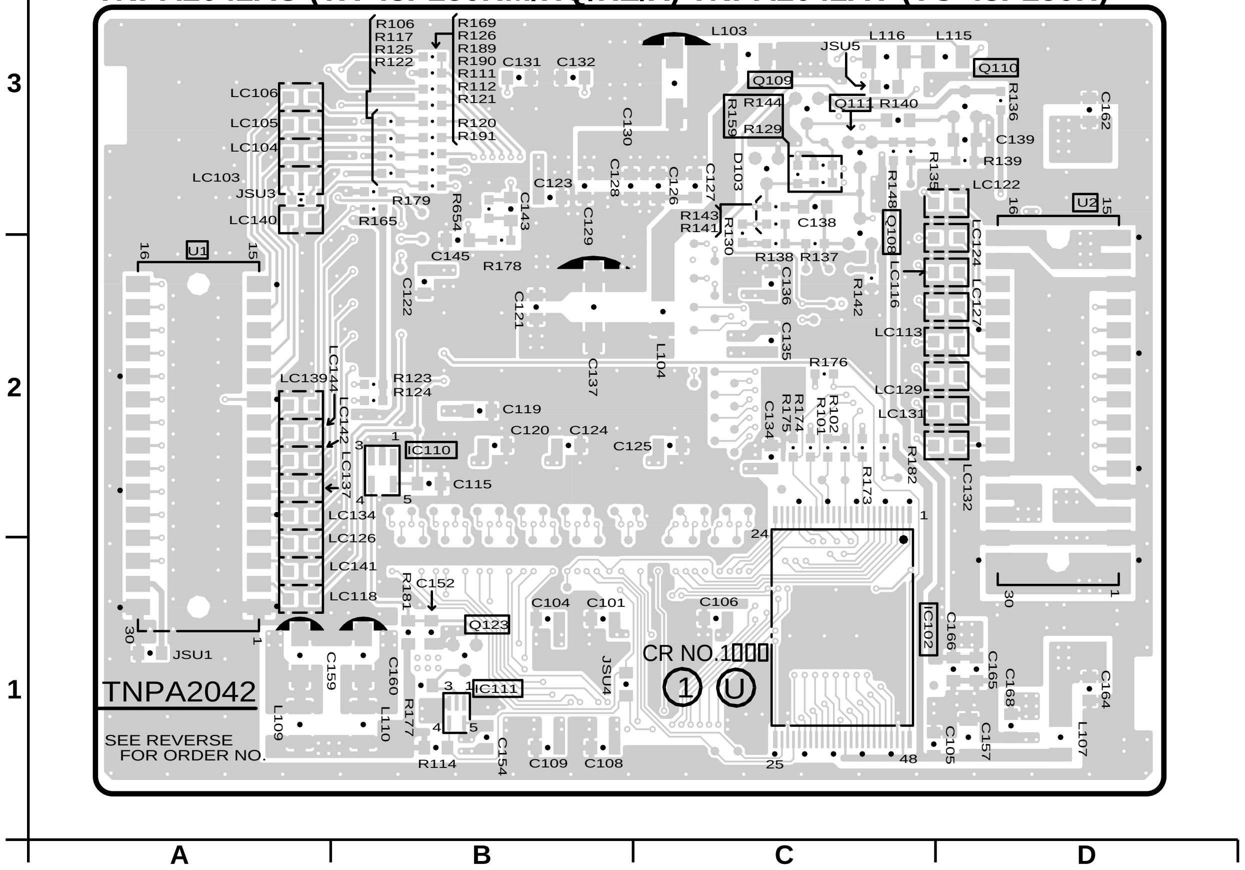
18. Schematic Diagram for printing with A4 size

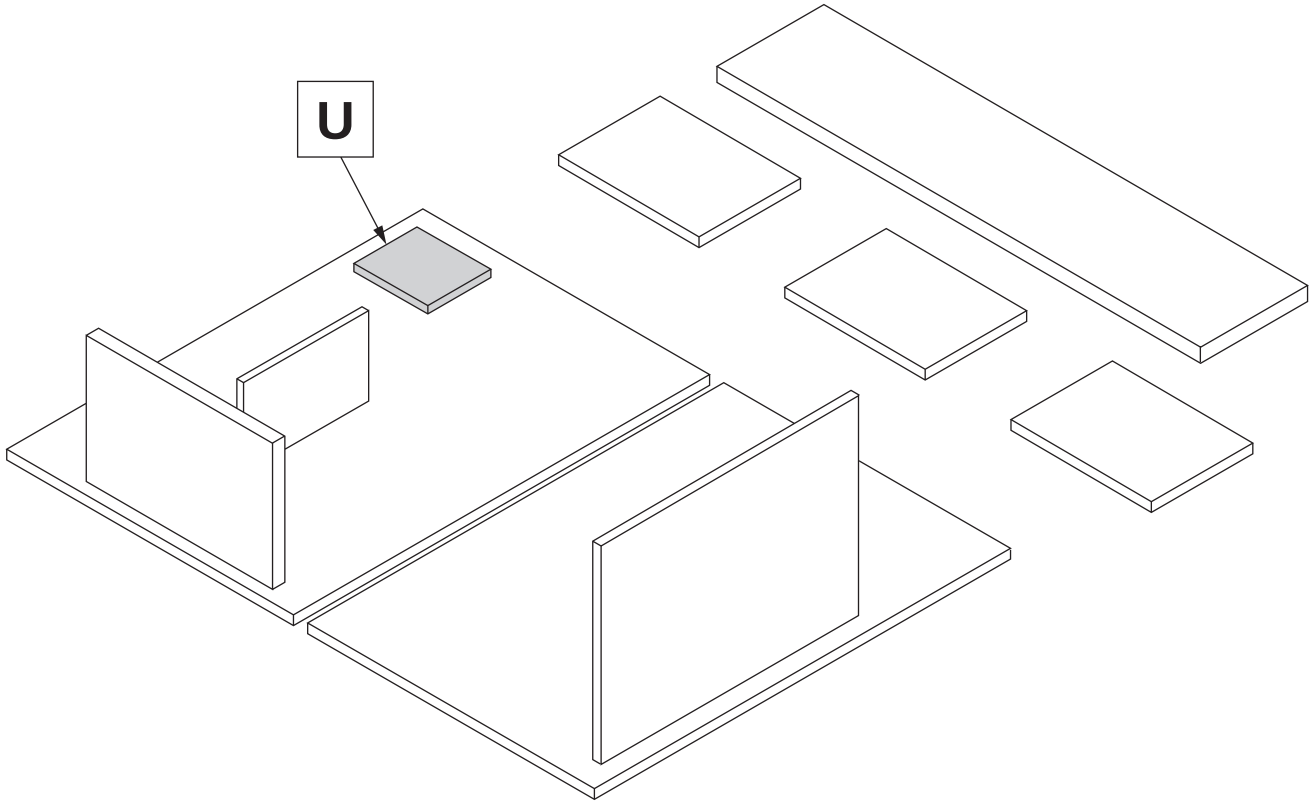

P-BOARD TNPA2316 (FOR TC-51P250H, TX-51P250HM/HQ)
TNPA2316AB (FOR TX-51P250HZ)
TNPA2316AC (FOR TX-51P250X)
TNPA2316AE (FOR TC-431P250H, TX-43P250HM/HQ)
TNPA2316AF (FOR TX-43P250HZ)
TNPA2316AG (FOR TX-43P250X)
TO D-BOARD (D40)
P40
D40
TUNNER GND
TO M-BOARD (M1)
P2
M1
TO AC MAIN-SW
FROM AC MAIN-SW
COLD
HOT
HOT
LIVE CIRCUIT
HOT
LIVE CIRCUIT
COLD
P4
TO TUNNER GND
L874 EXCELSA35T
L880 EXCELSA35T
C874 2200P
C807 3300P
C809 3300P
L873 TX-43/51P250X:ELF24V030A OTHER:ELF24V018A
L872 TX-43/51P250X:ELF24V032A OTHER:ELF24V019A
C806 0.22 AC250V
L870 TX-43/51P250X:ELF24V030A OTHER:ELF24V018A
C805 0.22 AC250V
C878 0.22 AC250V
TX-43/51P250X ONLY
D875 ERZV14D511T1
R870 3.3M
250V, T5AL
F801 K5D502BL0003
P5
TO AC
BROWN
BLUE
TO AC CORD
R6704 5.6
C6715 680P 2kV
D6712 B0EAKT000023
D6717 B0EAKT000023
C6731 680P 2kV
D6718 B0EAKT000023
C6732 680P 2kV
D893 B0EAKT000023
C893 680P
D876 ERZV14D511T1
C883 450V 10
370V
R883 100k
C888 3900P 1kV
L6719 EXCELDR25V
D6718 22P 2kV
D6705 EG01C
EXCELDR25V L6720
IC881 MIP2810001TV
BP FB S NC D
64.4
63.3
0
18.6
67.0
C884 0.1
D6710 MAZ20820A0LS
C885 100P
C886 27P 2kV
R882 100
D884 B3PAA0000222 ON3171R
TX-43/51P250X
T881 TLPA078
OTHERS
T881 ETS19AB186AG
C890 1000P 500V
D890 EU02
C891 16V 470
L883 180
6.5V
C889 16V 2200
JSP11
R890 1k 1/2W
R891 1.2k
C895 50V 10
D886 MA2C165001VT
D885 MAZ40560HF
C894 35V 47
TO D-BOARD (D60)
P60
D60
6.5V
GND
RELAY
18V
RL802 K6B1AGA00043
R801 4.7 10W
RL801 K6B1ADA00010
D871 B0AAGM000006
Q852 2SC3311A0A B1AACF000052
0.1
0.7
0
R854 220
D801 D4SB80 D4SB80Z
C804 500V 4700P
C803 500V 4700P
C802 500V 4700P
JSP13
D822 B0EAKT000023
D823 B0EAKT000023
C863 4700P 1kV
C864 4700P 1kV
IC802 STR83145LF55
SW DELAY T1 T2 GATE COMMON
C865 4.7
C866 4.7
C867 0.047
R861 47
C868 0.047 250V
BOUBLE-GND
TX-43/51P250X ONLY
TO D-BOARD (D50)
P50
D50
TO D-BOARD (D70)
P70
D70
18V
18V
H-DRIVE
H-DRIVE
H-OUT
H-OUT
D500 D1NL40V70
R503 68
C505 50V 470
C502 35V 100
C503 0.1
R504 1k
C504 500V 0.001
D501 D1NL40V70
T501 ETH19K135AY
L500 JW
R502 68
D502 MA241500MF
R501 100k
14.7
2.0
0
Q501 B1CEML000001
A
B
C
D
E
1
2
3
4
5
6
7

U-BOARD (FOIL SIDE)
TZTNP020GAV (TX-51P250HM/HQ/HZ/X) TZTNP020GEV (TC-51P250H)
TNPA2042AU (TX-43P250HM/HQ/HZ/X) TNPA2042AV (TC-43P250H)


6
5
4
R261
R262
JSU2
C133
R128
R145
R146
C142
X3501
C161
C140
C141
Q127
R153
R127
R170
IC101
R188
LC111
LC120
LC112
LC121
LC117
LC135
R263
R154
C153
LC108
R256
R258
R255
R151
R134
R131
L113
R264
R147
C171
R259
R257
LC114
Q126
Q125
LC123
LC128
R167
R3037
R3038
R193
R317
R171
R172
R196
LC115
LC125
LC130
LC133
LC146
CR NO.1□□□□
LC110
LC119
LC145
LC138
LC143
LC136
LC102
LC101
R232
R202
Q117
Q118
LC109
R205
TNPA2042
LC147
R183
R152
R180
R160
R192
R249
R250
R195
R156
R155
R158
R157
R116
R113
R119
R118
LC107
R209
R194
R233
R236
R214
R217
R221
R225
R185
R184
R186
C155
IC106
C103
C102
C163
Q119
L108
C167
C107
C158
U
1

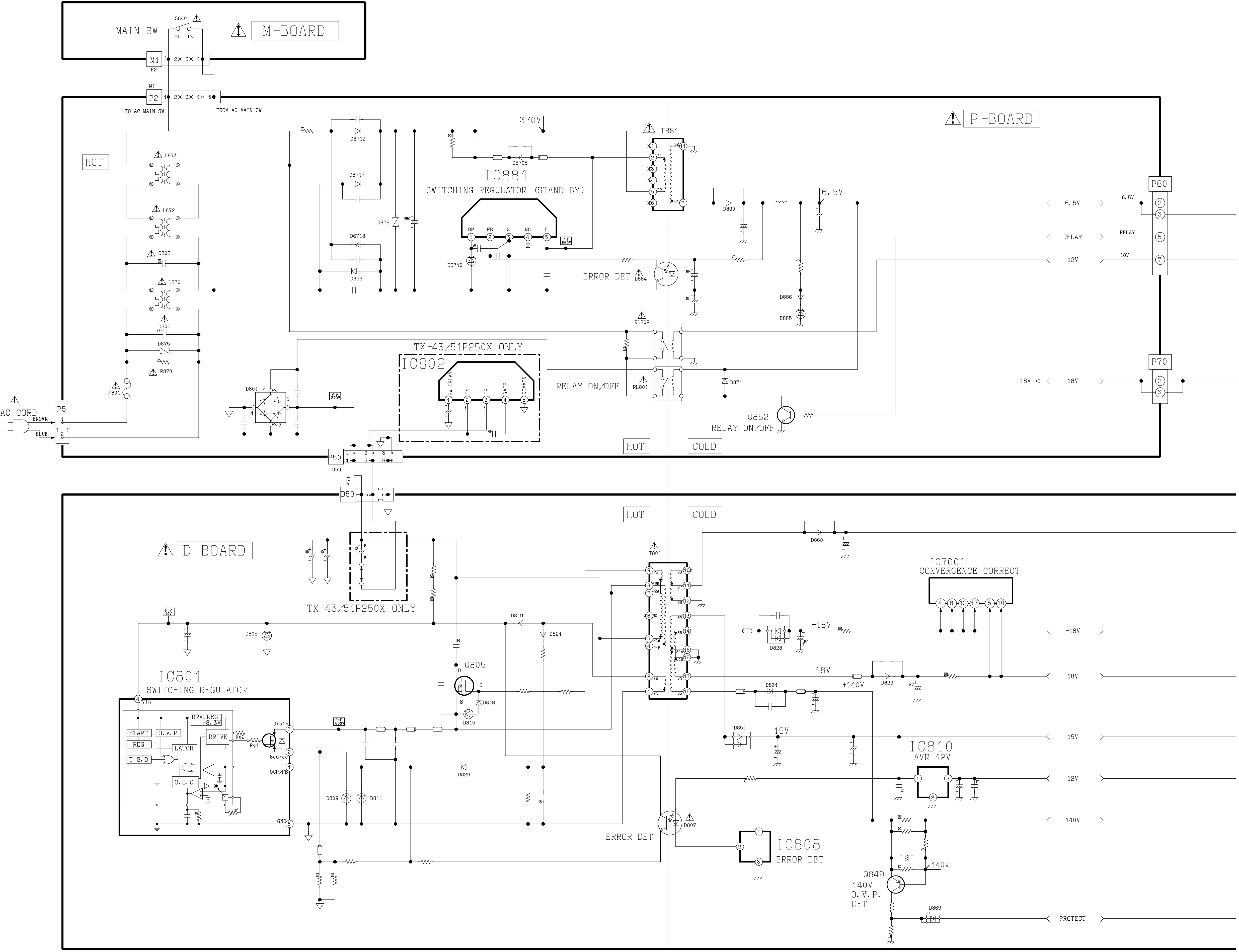
U-BOARD (COMPONENT SIDE)
TZTNP020GAV (TX-51P250HM/HQ/HZ/X) TZTNP020GEV (TC-51P250H)
TNPA2042AU (TX-43P250HM/HQ/HZ/X) TNPA2042AV (TC-43P250H)

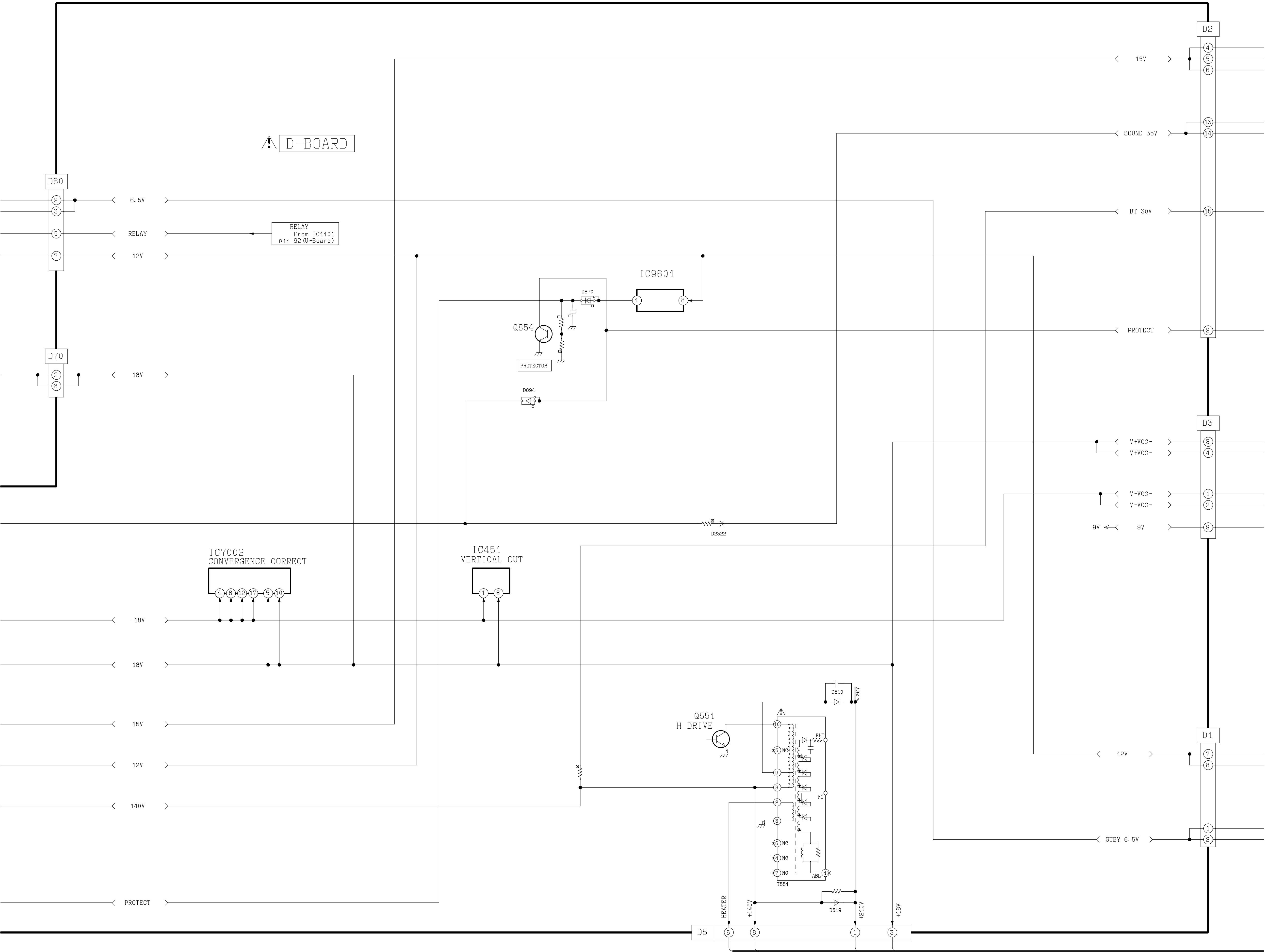

3
2
1
A
B
C
D
R106
R117
R125
R122
R169
R126
R189
R190
R111
R112
R121
R120
R191
C131
C132
L103
JSU5
L116
L115
Q110
Q109
R144
Q111
R140
R136
C162
LC106
LC105
LC104
LC103
JSU3
LC140
C130
R159
R129
C139
R139
LC122
C123
C128
C126
C127
D103
R148
R135
R179
R654
C143
R165
C129
R143
R141
R130
C138
Q108
U2
16
15
U1
16
15
C145
R178
R138
R137
LC124
LC127
C122
C121
C136
R142
LC116
LC113
C135
L104
C137
R176
LC129
LC131
LC139
LC144
R123
R124
C119
C134
R175
R174
R102
R101
LC142
LC137
IC110
C120
C124
C125
R182
LC132
R173
C115
LC134
LC126
LC141
LC118
24
1
R181
C152
C104
C101
C106
IC102
C166
30
1
Q123
JSU1
JSU4
CR NO.1□□□□
C165
C168
C164
C159
C160
L110
R177
IC111
TNPA2042
L109
SEE REVERSE FOR ORDER NO.
R114
C154
C109
C108
25
48
C105
C157
L107
1
U

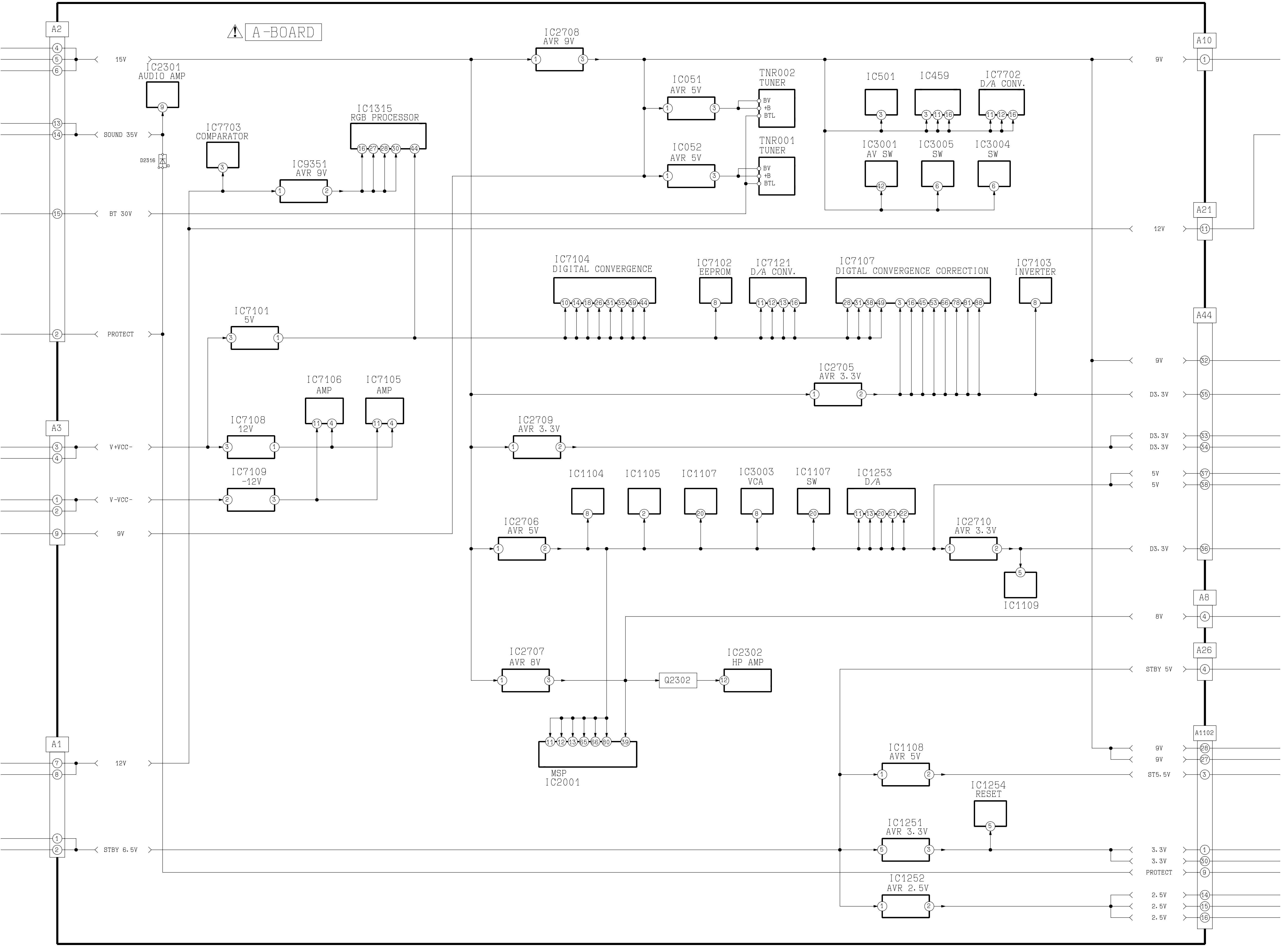


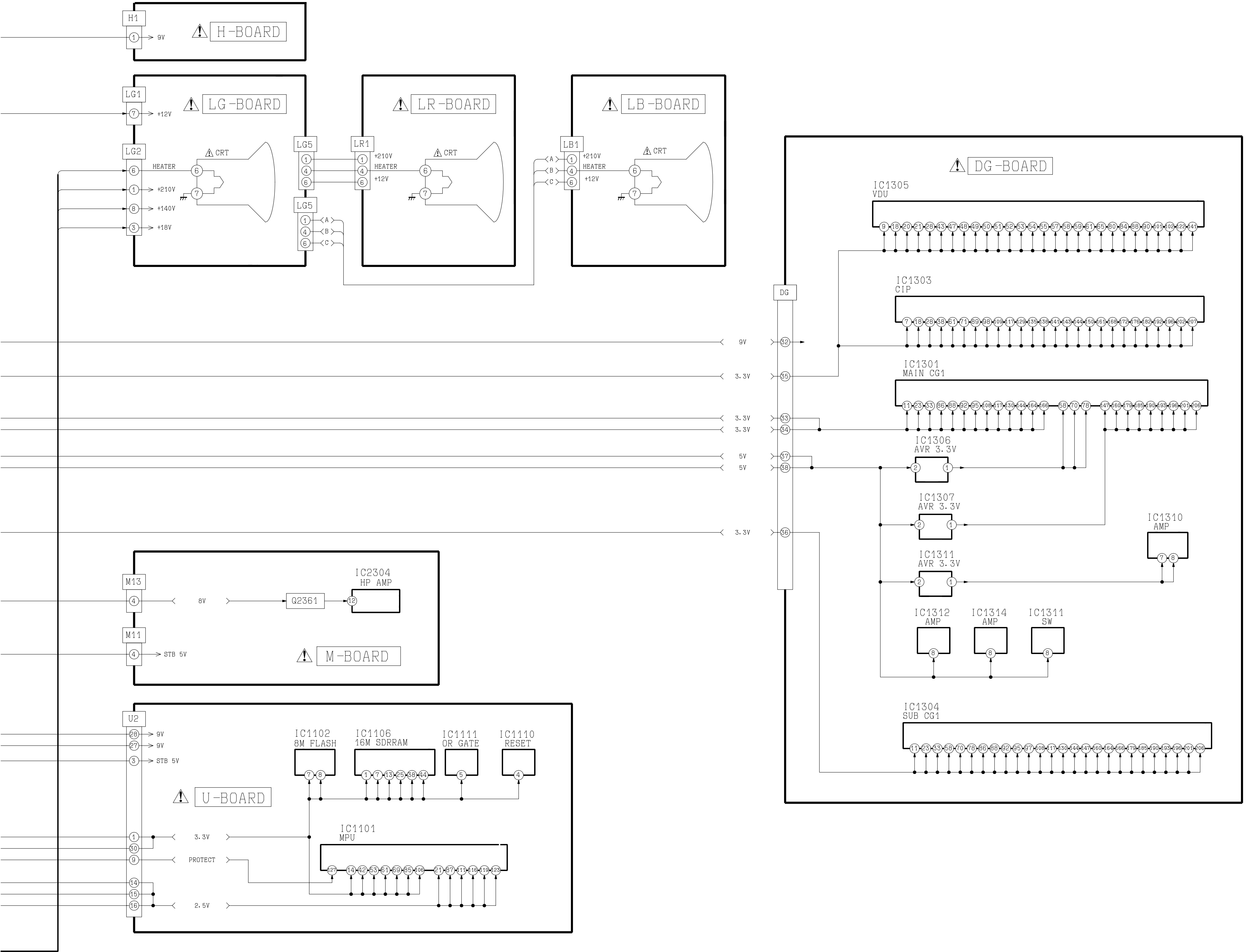
Parts Location

U-BOARD			
IC		TRANSISTOR	
IC1101	B-6	Q1108	C-3
IC1102	C-1	Q1109	C-3
IC1106	B-4	Q1110	D-3
IC1110	B-2	Q1111	C-3
IC1111	B-1	Q1117	A-5
		Q1118	A-5
		Q1119	B-4
		Q1123	B-1
		Q1125	A-5
		Q1126	A-5
		Q1127	B-6


MAIN SW
S840
M-BOARD
M1
P2
TO AC MAIN-SW
FROM AC MAIN-SW
P-BOARD
HOT
COLD
L873
L872
C806
L870
C805
D875
R870
F801
AC CORD
BROWN
BLUE
P5
D6712
D6717
D6718
D893
D876
370V
D6705
IC881
SWITCHING REGULATOR (STAND-BY)
BP
FB
S
NC
D
D6710
T881
D890
6.5V
ERROR DET
D884
D886
D885
RL802
RL801
RELAY ON/OFF
D871
Q852
RELAY ON/OFF
D801
TX-43/51P250X ONLY
IC802
SW DELAY
T1
T2
GATE
COMMON
P60
6.5V
RELAY
12V
18V
P70
18V
P50
D50
D-BOARD
T801
D860
IC7001
CONVERGENCE CORRECT
-18V
D828
18V
+140V
D829
D831
D851
15V
IC810
AVR 12V
12V
140V
PROTECT
D869
Q849
140V
O.V.P.
DET
140v
IC808
ERROR DET
D807
ERROR DET
IC801
SWITCHING REGULATOR
Vin
START
O.V.P
REG
DRV.REG
=8.3V
DRIVE
LATCH
T.S.D
O.S.C
R92
R91
Drain
Source
OCP/FB
GND
D805
D819
D821
Q805
D816
D815
D820
D809
D811
TX-43/51P250X ONLY


D-BOARD
D60
6.5V
RELAY
RELAY From IC1101 pin 92(U-Board)
12V
D70
18V
D2
15V
SOUND 35V
BT 30V
PROTECT
IC9601
D870
Q854
PROTECTOR
D894
D3
V+VCC-
V+VCC-
V-VCC-
V-VCC-
9V
9V
D2322
IC7002
CONVERGENCE CORRECT
IC451
VERTICAL OUT
-18V
18V
15V
12V
140V
PROTECT
Q551
H DRIVE
D510
210V
EHT
FO
NC
ABL
T551
D519
D1
12V
STBY 6.5V
HEATER
+140V
+210V
+18V
D5


A-BOARD
A2
15V
SOUND 35V
BT 30V
PROTECT
A3
V+VCC-
V-VCC-
9V
A1
12V
STBY 6.5V
IC2301
AUDIO AMP
D2316
IC7703
COMPARATOR
IC9351
AVR 9V
IC1315
RGB PROCESSOR
IC2708
AVR 9V
IC051
AVR 5V
IC052
AVR 5V
TNR002
TUNER
TNR001
TUNER
BV
+B
BTL
IC501
IC459
IC7702
D/A CONV.
IC3001
AV SW
IC3005
SW
IC3004
SW
IC7104
DIGITAL CONVERGENCE
IC7102
EEPROM
IC7121
D/A CONV.
IC7107
DIGITAL CONVERGENCE CORRECTION
IC7103
INVERTER
IC7101
5V
IC7106
AMP
IC7105
AMP
IC7108
12V
IC7109
-12V
IC2705
AVR 3.3V
IC2709
AVR 3.3V
IC1104
IC1105
IC1107
IC3003
VCA
IC1107
SW
IC1253
D/A
IC2706
AVR 5V
IC2710
AVR 3.3V
IC1109
IC2707
AVR 8V
Q2302
IC2302
HP AMP
MSP
IC2001
IC1108
AVR 5V
IC1254
RESET
IC1251
AVR 3.3V
IC1252
AVR 2.5V
A10
9V
A21
12V
A44
9V
D3.3V
D3.3V
D3.3V
5V
5V
D3.3V
A8
8V
A26
STBY 5V
A1102
9V
9V
ST5.5V
3.3V
3.3V
PROTECT
2.5V
2.5V
2.5V


H1
9V
H-BOARD
LG1
+12V
LG-BOARD
LG2
HEATER
+210V
+140V
+18V
CRT
LG5
LR1
+210V
HEATER
+12V
LR-BOARD
CRT
LB1
+210V
HEATER
+12V
LB-BOARD
CRT
A
B
C
DG-BOARD
IC1305
VDU
IC1303
CIP
IC1301
MAIN CG1
IC1306
AVR 3.3V
IC1307
AVR 3.3V
IC1311
AVR 3.3V
IC1310
AMP
IC1312
AMP
IC1314
AMP
IC1311
SW
IC1304
SUB CG1
DG
9V
3.3V
3.3V
3.3V
5V
5V
3.3V
M13
8V
Q2361
IC2304
HP AMP
M11
STB 5V
M-BOARD
U2
9V
9V
STB 5V
U-BOARD
IC1102
8M FLASH
IC1106
16M SDRRAM
IC1111
OR GATE
IC1110
RESET
3.3V
PROTECT
2.5V
IC1101
MPU

14 Schematic Diagram

14.1. Schematic Diagram Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

Notes:

1. **Resistor**
   All resistors are cabon 1/4W resistor, unless marked as follows:
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).

○	: Nonflammable	☒	: Metal Oxide
△	: Solid	◎	: Metal Film
⧄	: Wire Wound	⊗	: Fuse**:**

2. **Capacitor**
   All capacitors are ceramic 50V capacitor, unless marked as follows:
   Unit of capacitance is µF, unless otherwise noted.

⊗	: Temperature Compensation	+⊣⊢	: Electrolytic
Ⓜ	: Polyester	NP⊣⊢	: Bipolar
ⓜ	: Metalized Polyester	Ⓣ	: Dipped Tantalum
☒	: Polypropylene	ⓩ	: Z-Type

3. Coil
   Unit of inductance is µF, unless otherwise noted.
4. Test Point
   ⚲ : Test Point position
5. Earth Symbol

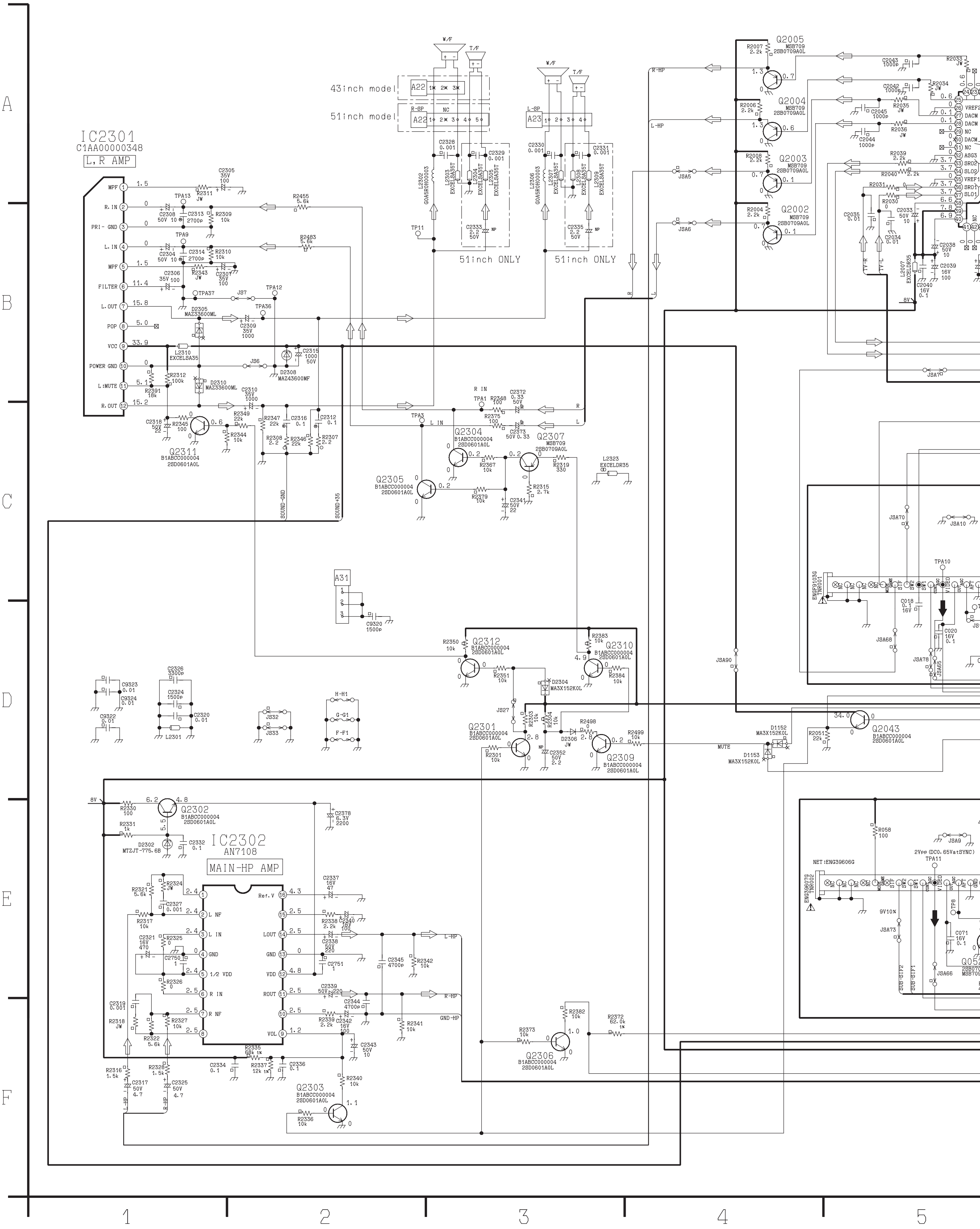
⏚	: Chassis Earth (Cold)	▽	: Line Earth (Hot)

6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source ....
   TX-43/51P250HM/HQ/HZ,TC-51P250H : AC 220V-240V, 50/60Hz
   TX-43/51P250X : AC 110V-240V, 50/60Hz
   Receiving Signal .... Colour Bar signal (RF)
   All customer's controls .... Maximum positions
7. Number in red circle indicates waveform nember.
   (See waveform pattern table.)
8. When arrow mark (↗) is found, connection is easily found from the direction of arrow
9. Indicates the major signal flow. : Video ➡ Audio ⇨
10. This schematic diagram is the latest at the time of printing and subject to change without notice.

Remarks:

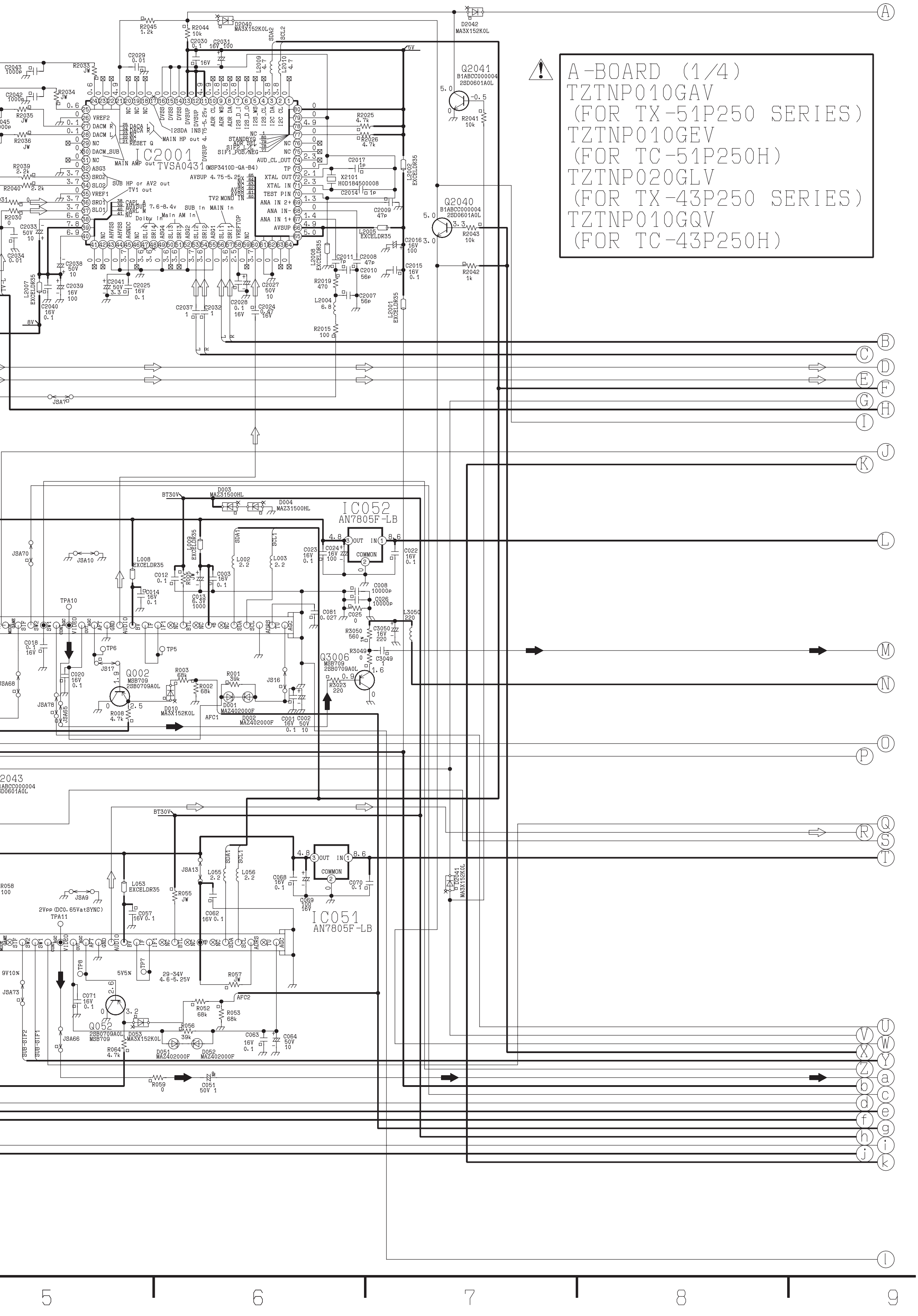
1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
   Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.
2. Following diodes are interchangeable.
   MA150- MA162 (Replacement part)

14.2. A-Board (1 of 4) Schematic Diagram

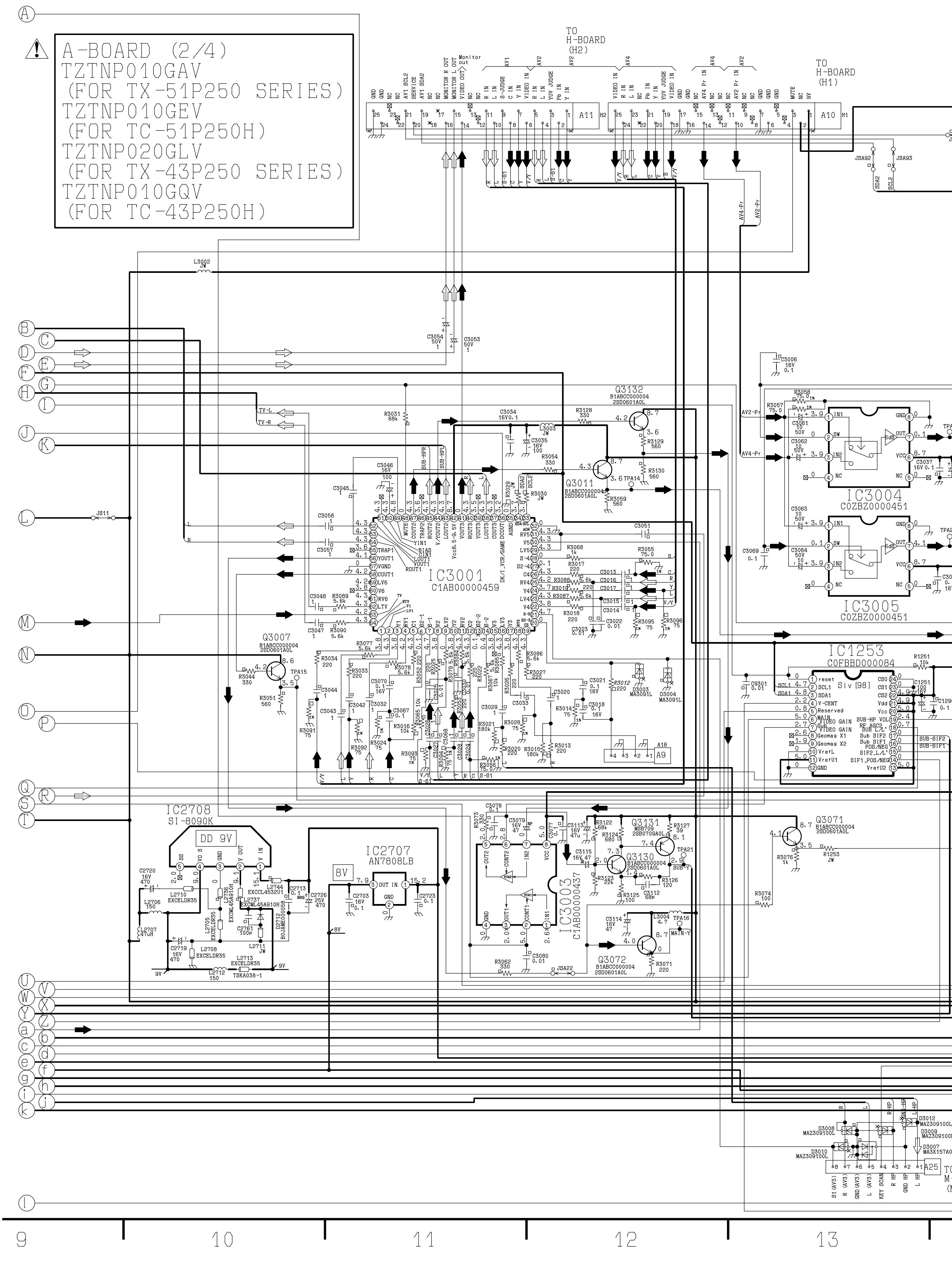


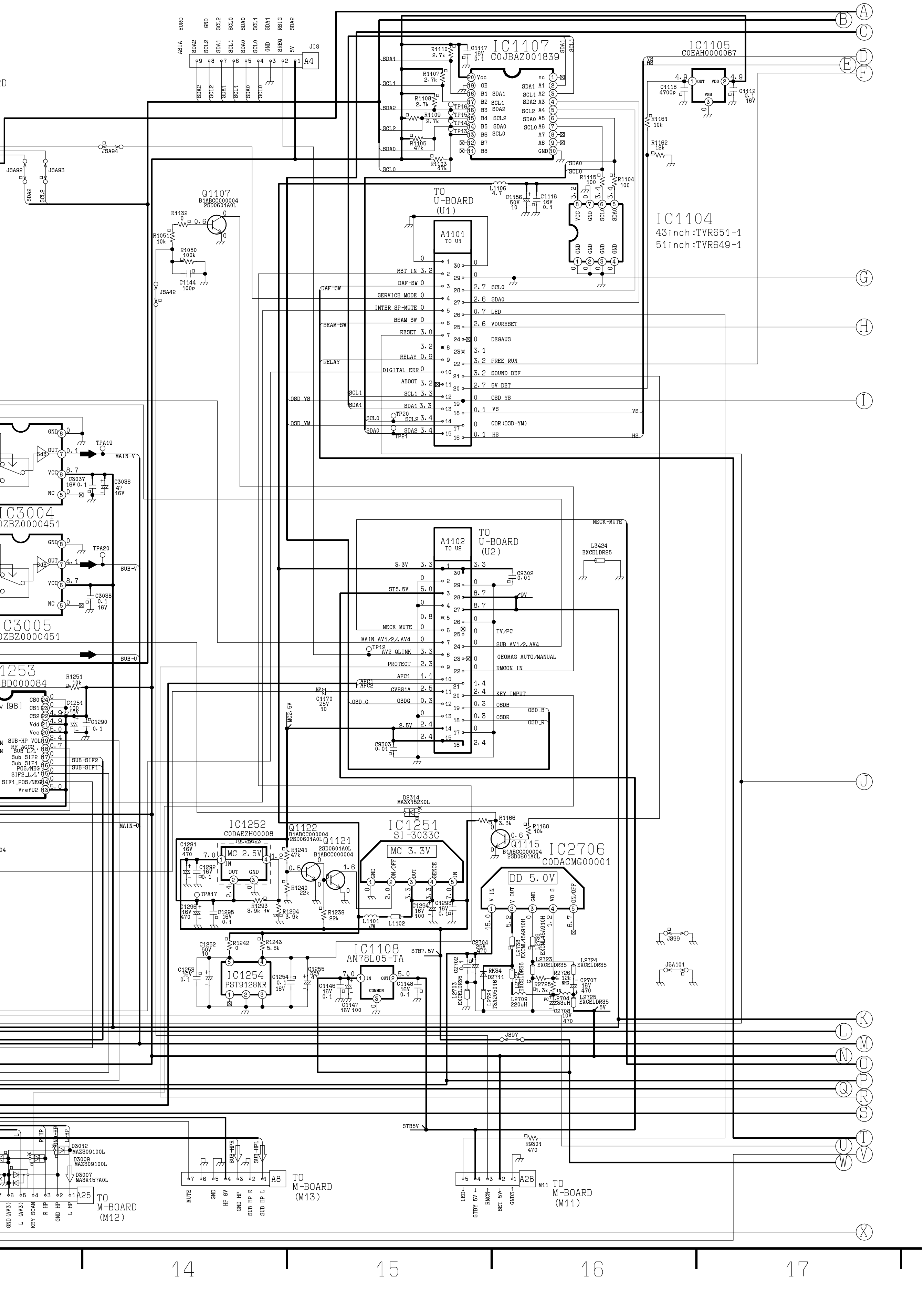
A
B
C
D
E
F
1
2
3
4
5
IC2301
C1AA00000348
L,R AMP
MPF
R.IN
PRI-GND
L.IN
MPF
FILTER
L.OUT
POP
VCC
POWER GND
L:MUTE
R.OUT
43inch model
51inch model
A22
A23
W/F
T/F
R-SP
L-SP
NC
51inch ONLY
51inch ONLY
TP11
Q2005
Q2004
Q2003
Q2002
MSB709
2SB0709A0L
R-HP
L-HP
JSA5
JSA6
VREF2
DACM
NC
ASG3
SRO2
SLO2
VREF1
SRO1
SLO1
R IN
L IN
TPA1
TPA3
Q2304
Q2305
Q2307
Q2311
B1ABCC000004
2SD0601A0L
SOUND-GND
SOUND-35
L2323
EXCELDR35
A31
C9320
1500p
Q2312
Q2310
D2304
MA3X152K0L
Q2301
Q2309
D2306
JS27
JSA90
D1152
D1153
MUTE
Q2043
H-H1
G-G1
F-F1
JS32
JS33
L2301
8V
Q2302
D2302
MTZJT-77S.6B
IC2302
AN7108
MAIN-HP AMP
L NF
L IN
GND
1/2 VDD
R IN
R NF
Ref.V
LOUT
GND
VDD
ROUT
VOL
L-HP
R-HP
GND-HP
Q2303
Q2306
TNR001
ENGF3103G
TPA10
JSA70
JSA10
JSA68
JSA78
JSA65
TNR002
ENG39606G
NET:ENG39606G
TPA11
2Vpp (DC0.65VatSYNC)
JSA9
R058
JSA73
JSA66
SUB-SIF2
SUB-SIF1
9V10%
TP8
C071
Q052

A-BOARD (1/4)
TZTNP010GAV
(FOR TX-51P250 SERIES)
TZTNP010GEV
(FOR TC-51P250H)
TZTNP020GLV
(FOR TX-43P250 SERIES)
TZTNP010GQV
(FOR TC-43P250H)


IC2001
TVSA0431 (MSP3410D-QA-B4)
IC052
AN7805F-LB
IC051
AN7805F-LB
Q2041
B1ABCC000004
2SD0601A0L
Q2040
B1ABCC000004
2SD0601A0L
Q3006
MSB709
2SB0709A0L
Q002
MSB709
2SB0709A0L
Q052
2SB0709A0L
MSB709
2043
B1ABCC000004
2SD0601A0L
D2040
MA3X152K0L
D2042
MA3X152K0L
D2041
MA3X152K0L
D003
MAZ31500HL
D004
MAZ31500HL
D001
MA2402000F
D002
MA2402000F
D010
MA3X152K0L
D053
MA3X152K0L
D051
MA2402000F
D052
MA2402000F
X2101
H0D184500008
BT30V
5V
8V
AFC1
AFC2
TPA10
TPA11
2Vpp (DC0.65VatSYNC)
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
a
b
c
d
e
f
g
h
i
j
k
l
5
6
7
8
9

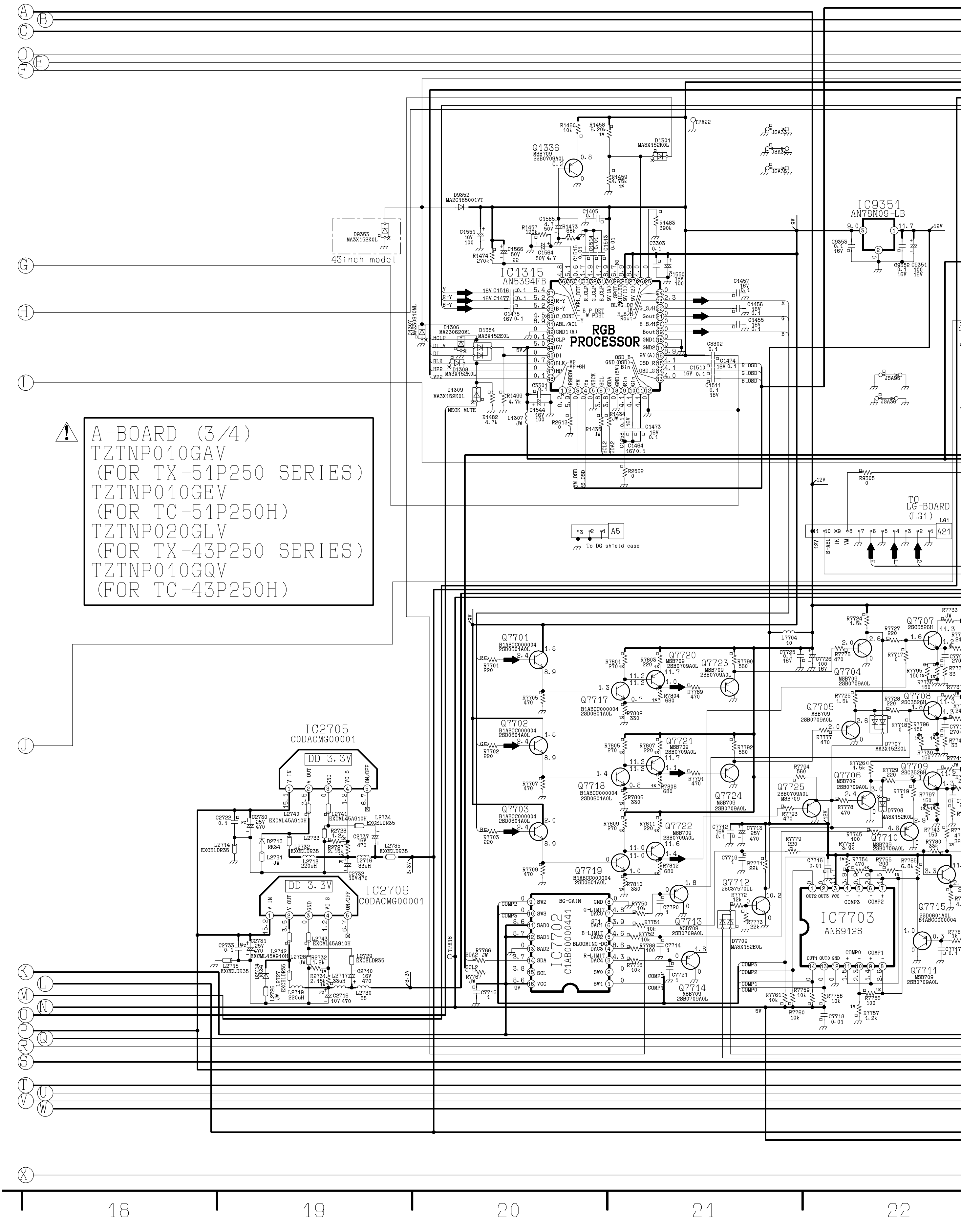
14.3. A-Board (2 of 4) Schematic Diagram

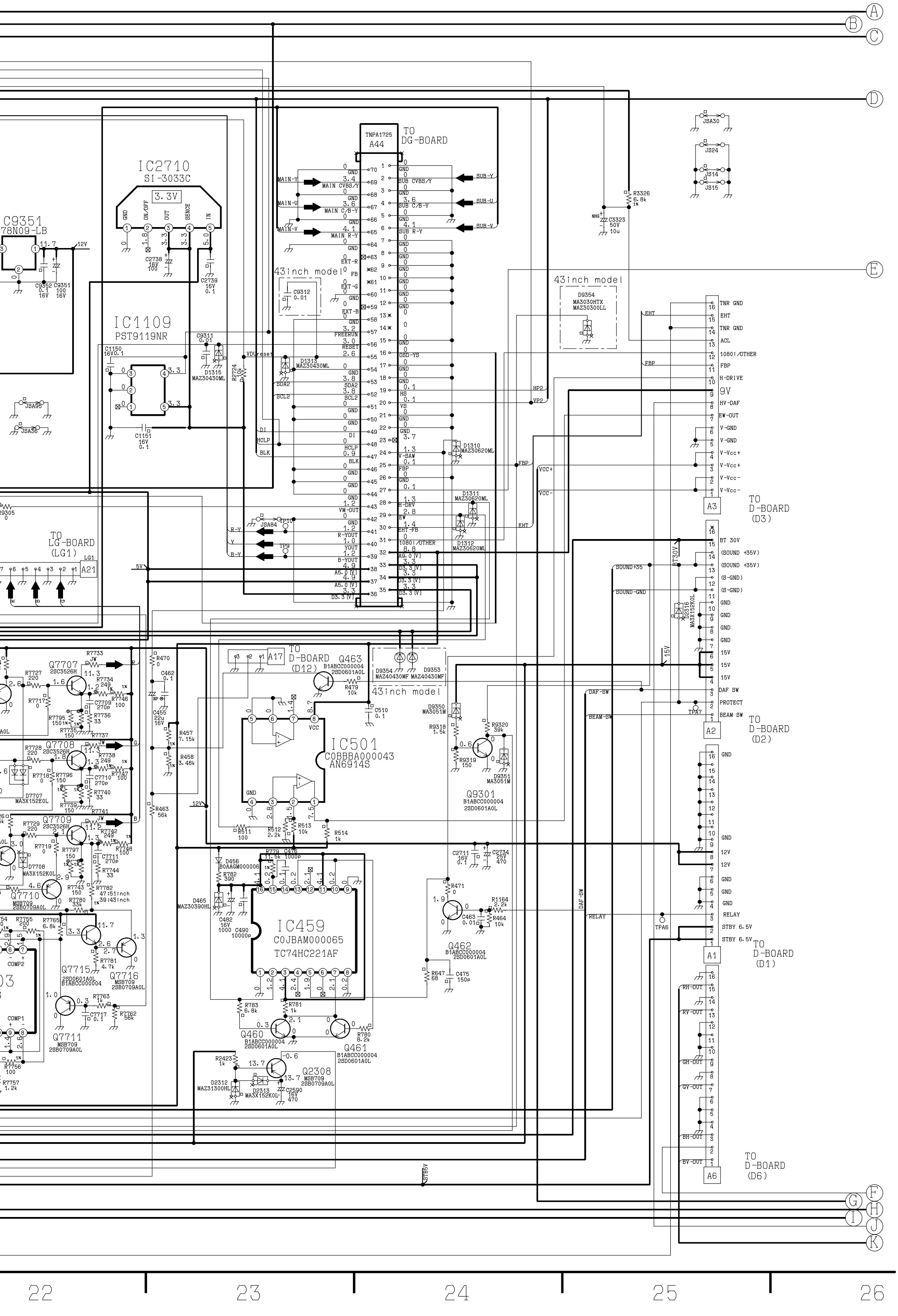

A-BOARD (2/4)
TZTNP010GAV
(FOR TX-51P250 SERIES)
TZTNP010GEV
(FOR TC-51P250H)
TZTNP020GLV
(FOR TX-43P250 SERIES)
TZTNP010GQV
(FOR TC-43P250H)
TO H-BOARD (H2)
TO H-BOARD (H1)
A11
A10
AV1
AV2
AV4
GND
NC
AV1 SCL2
SERVICE
AV1 SDA2
MONITOR R OUT
MONITOR L OUT
Monitor out
VIDEO OUT
R IN
L IN
S-JUDGE
C IN
Y IN
VIDEO IN
YUV JUDGE
Pb IN
AV4 Pr IN
AV2 Pr IN
MUTE
9V
JSA92
JSA93
SDA2
SCL2
AV4-Pr
AV2-Pr
L3002 JW
C3054 50V 1
C3053 50V 1
C3006 16V 0.1
Q3132 B1ABCC000004 2SD0601A0L
R3128 330
R3129 560
C3034 16V 0.1
L3003 JW
C3035 16V 100
R3054 330
R3031 68k
Q3011 B1ABCC000004 2SD0601A0L
R3130 560
R3059 560
TPA14
R3030 JW
R3057 75.0
R3058 75.0
C3061 10 50V
C3062 10 50V
C3063 10 50V
C3064 10 50V
C3069 0.1
IN1
SW
IN2
NC
GND
OUT
VCC
C3037 16V 0.1
IC3004 C0ZBZ0000451
IC3005 C0ZBZ0000451
TV-L
TV-R
SUB-HPR
SUB-HPL
C3046 16V 100
C3045 1
C3058 1
C3057 1
C3048 1
C3047 1
R3089 5.6k
R3090 5.6k
IC3001 C1AB00000459
TRAP1
YOUT1
VGND
COUT1
LV6
YV6
RV6
LTV
BIAS
CIN1
LOUT1
ROUT1
MUTE
TRAP2
YIN1
V/OUT2
Vcc8.5-9.5V
DK/I_VCR/GAME DCOUT
AGND
C3051 1
R3068 1k
R3055 75.0
R3017 220
R3088 5.6k
R3019 220
R3087 5.6k
R3018 220
C3013
C3016
C3017
C3015
C3014
C3022 0.01
C3023 0.01
R3095 75
R3096 75
JS11
Q3007 B1ABCC000004 2SD0601A0L
R3044 330
R3051 560
TPA15
R3034 220
R3077 5.6k
R3078 5.6k
R3033 220
C3044 1
C3043 1
C3042 1
C3032 1
C3070 0.1 16V
C3067 0.1
R3091 75
R3092 75
R3016 10k
R3024 75
R3093 75
R3086 5.6k
R3027 220
C3021 0.1 16V
R3012 220
D3003 MA3091L
D3004 MA3091L
C3020 1
C3029 1
C3033 1
R3014 75
C3018 0.1 16V
R3028 75
R3021 180k
R3020 220
R3015 180k
R3013 220
R3056 75.0
A18
A9
IC1253 C0FBBD000084
Slv [98]
reset
SCL1
SDA1
V-CENT
Reserved
VIDEO GAIN
Geomag X1
Geomag X2
VrefL
VrefU1
CS0
CS1
CS2
Vdd
Vcc
SUB-HP VOL
RF AGC
SUB L/L'
Sub SIF2
Sub SIF1
POS/NEG
SIF2_L/L'
SIF1_POS/NEG
VrefU2
SUB-SIF2
SUB-SIF1
R1251 10k
C1251 100
C9301 0.01
IC2708 SI-8090K
DD 9V
C2720 16V 470
L2710 EXCELDR35
L2706 150
L2707 47uH
C2719 16V 470
L2708 EXCELDR35
L2705 EXCELDR35
L2736 EXCML45A910H
L2737 EXCML45A910H
C2761 100p
D2712 B0JAME000058
L2711 JW
L2713 EXCELDR35
L2712 150
TSKA038-1
L2744 EXCCL4532U1
C2713 0.1
C2726 25V 470
9V
IC2707 AN7808LB
8V
OUT IN
GND
C2703 16V 0.1
C2723 0.1
IC3003 C1AB00000437
OUT2
CONT2
IN2
VCC
GND
OUT1
CONT1
IN1
R3073 330
C3078 0.1
C3079 16V 47
C3077 0.1
C3113 16V 47
C3115 16V 47
R3122 68k
R3124 680
Q3131 2SB0709A0L
R3127 39
TPA21
Q3130 B1ABCC000004 2SD0601A0L
R3123 22k
R3125 100
C3112 68P
R3126 120
SUB-Y
C3114 16V 47
L3004 JW
TPA16
MAIN-Y
Q3072 B1ABCC000004 2SD0601A0L
R3071 220
R3062 330
C3080 0.01
JSA22
Q3071 B1ABCC000004 2SD0601A0L
R3076 1k
R1253 JW
R3074 100
D3008 MAZ309100L
D3010 MAZ309100L
D3012 MAZ309100L
D3009 MAZ309100L
D3007 MA3X157A0
A25
R-HP
L-HP
S1 (AV3)
R (AV3)
GND (AV3)
L (AV3)
KEY SCAN
R HP
GND HP
L HP
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
a
b
c
d
e
f
g
h
i
j
k
l
9
10
11
12
13



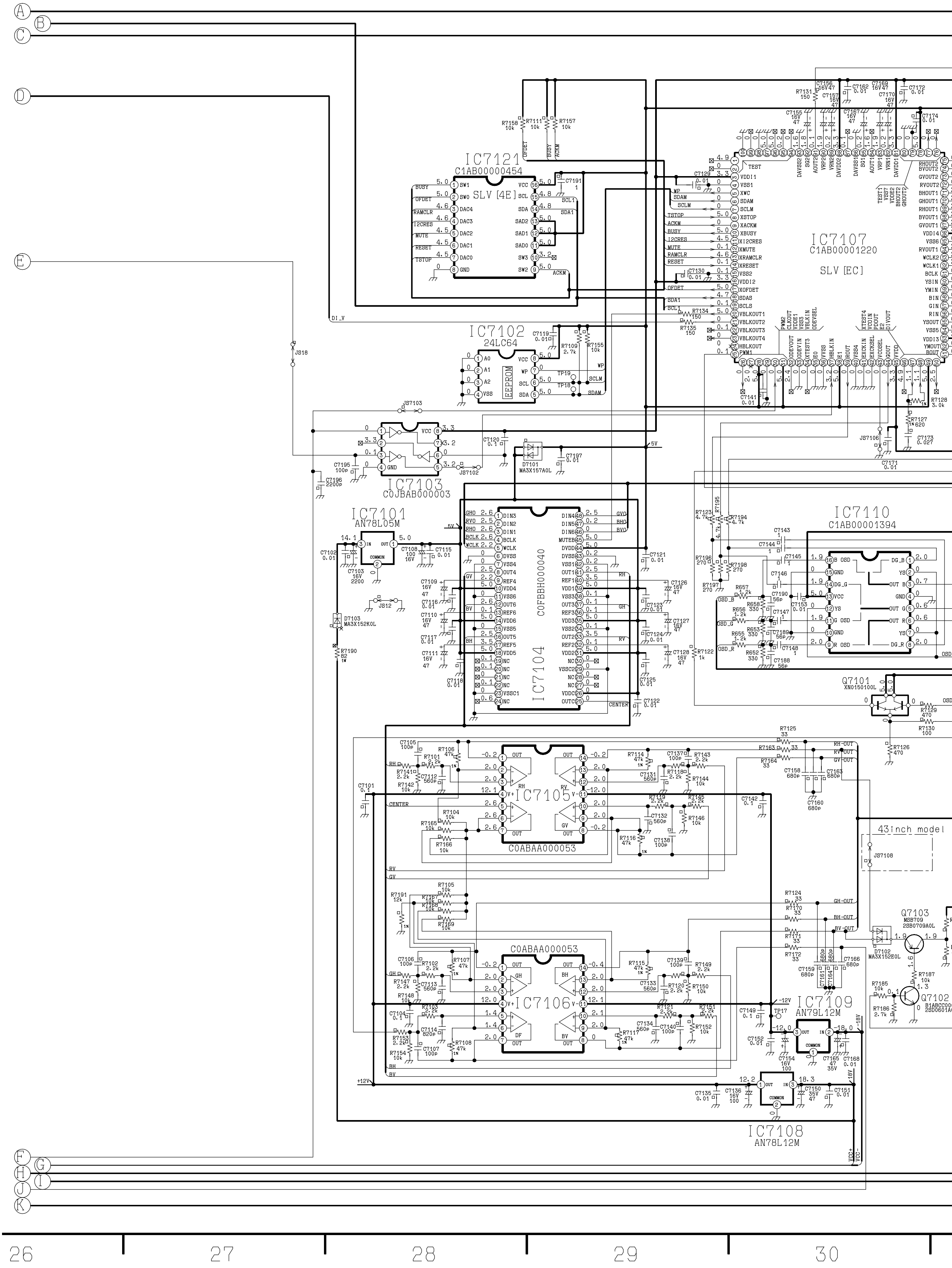
IC1107
C0JBAZ001839
IC1105
C0EAH0000067
IC1104
43inch:TVR651-1
51inch:TVR649-1
TO U-BOARD (U1)
A1101 TO U1
A1102 TO U2
TO U-BOARD (U2)
Q1107 B1ABCC000004 2SD0601A0L
IC3004
IC3005
IC1252 C0DAEZH00008
Q1122 B1ABCC000004 2SD0601A0L
Q1121 2SD0601A0L B1ABCC000004
IC1251 SI-3033C
MC 3.3V
MC 2.5V
Q1115 B1ABCC000004 2SD0601A0L
IC2706 C0DACMG00001
DD 5.0V
IC1254 PST9128NR
IC1108 AN78L05-TA
JIG
A4
A8 TO M-BOARD (M13)
A25 TO M-BOARD (M12)
A26 M11 TO M-BOARD (M11)
RST IN
DAF-SW
SERVICE MODE
INTER SP-MUTE
BEAM SW
RESET
RELAY
DIGITAL ERR
ABOOT
SCL1
SDA1
SCL2
SDA2
SCL0
SDA0
LED
VDURESET
DEGAUS
FREE RUN
SOUND DEF
5V DET
OSD YS
VS
COR(OSD-YM)
HS
NECK MUTE
MAIN AV1/2/AV4
AV2 GLINK
PROTECT
AFC1
CVBS1A
OSDG
TV/PC
SUB AV1/2,AV4
GEOMAG AUTO/MANUAL
RMCON IN
KEY INPUT
OSDB
OSDR
NECK-MUTE
L3424 EXCELDR25
MAIN-V
SUB-V
SUB-U
MAIN-U
SUB-SIF2
SUB-SIF1
STB7.5V
STB5V
JS97
JS99
JSA101
MUTE
GND
HP 8V
GND HP
SUB HP R
SUB HP L
LED
STBY 5V
RMCN
SET 5V
GND3
GND(AV3)
L (AV3)
KEY SCAN
R HP
GND HP
L HP
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
14
15
16
17

14.4. A-Board (3 of 4) Schematic Diagram

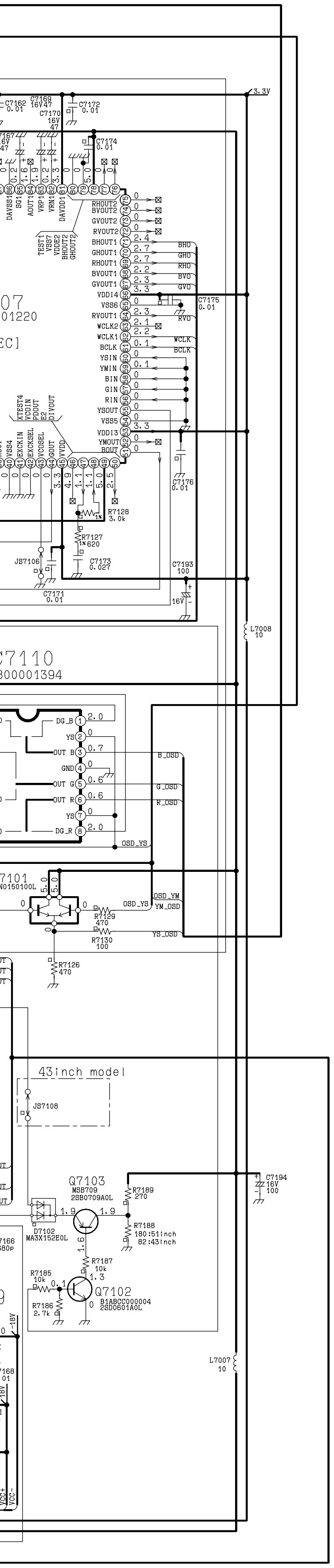

A-BOARD (3/4)
TZTNP010GAV
(FOR TX-51P250 SERIES)
TZTNP010GEV
(FOR TC-51P250H)
TZTNP020GLV
(FOR TX-43P250 SERIES)
TZTNP010GQV
(FOR TC-43P250H)
IC1315
AN5394FB
RGB PROCESSOR
IC9351
AN78N09-LB
IC2705
C0DACMG00001
IC2709
C0DACMG00001
DD 3.3V
IC7702
C1AB00000441
IC7703
AN6912S
Q1336
Q7701
Q7702
Q7703
Q7704
Q7705
Q7706
Q7707
Q7708
Q7709
Q7710
Q7711
Q7712
Q7713
Q7714
Q7715
Q7717
Q7718
Q7719
Q7720
Q7721
Q7722
Q7723
Q7724
Q7725
43inch model
NECK-MUTE
TO LG-BOARD (LG1)
A21
A5
To DG shield case
TPA22
TPA18
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
18
19
20
21
22


A
B
C
D
E
F
G
H
I
J
K
IC2710
SI-3033C
3.3V
GND
ON/OFF
OUT
SENCE
IN
C9351
78N09-LB
IC1109
PST9119NR
TNPA1725
A44
TO
DG-BOARD
MAIN-Y
MAIN-U
MAIN-V
SUB-Y
SUB-U
SUB-V
MAIN CVBS/Y
MAIN C/B-Y
MAIN R-Y
SUB CVBS/Y
SUB C/B-Y
SUB R-Y
EXT-R
EXT-G
EXT-B
FREERUN
RESET
OSD-YS
SDA2
SCL2
HP2
VP2
HS
VS
DI
HCLP
BLK
V-SAW
FBP
H-DRV
EW
EHT-FB
1080I/OTHER
VM-OUT
R-YOUT
YOUT
B-YOUT
A9.0(V)
A5.0(V)
D3.3(V)
43inch model
C9312
0.01
D1313
MAZ30430ML
D1315
MAZ30430ML
D1310
MAZ30620ML
D1311
MAZ30620ML
D1312
MAZ30620ML
D9354
MA3030HTX
MAZ30300LL
R3326
6.8k
C3323
50V
10u
JSA30
JS24
JS14
JS15
TO
LG-BOARD
(LG1)
A21
TO
D-BOARD
(D3)
A3
TNR GND
EHT
ACL
1080I/OTHER
FBP
H-DRIVE
9V
HV-DAF
EW-OUT
V-GND
V-Vcc+
V-Vcc-
TO
D-BOARD
(D2)
A2
BT 30V
(SOUND +35V)
(S-GND)
GND
15V
DAF SW
PROTECT
BEAM SW
TO
D-BOARD
(D1)
A1
12V
RELAY
STBY 6.5V
TO
D-BOARD
(D6)
A6
RH-OUT
RV-OUT
GH-OUT
GV-OUT
BH-OUT
BV-OUT
TO
D-BOARD
(D12)
A17
Q463
B1ABCC000004
2SD0601A0L
D9354
MA240430MF
D9353
MA240430MF
IC501
C0BBBA000043
AN6914S
Q9301
B1ABCC000004
2SD0601A0L
D9350
MA3051M
D9351
MA3051M
IC459
C0JBAM000065
TC74HC221AF
Q462
B1ABCC000004
2SD0601A0L
Q460
B1ABCC000004
2SD0601A0L
Q461
B1ABCC000004
2SD0601A0L
Q2308
MSB709
2SB0709A0L
D2312
MAZ31300HL
D2313
MA3X152K0L
D456
B0AAGM000006
D465
MAZ30390HL
D2316
MA3X152K0L
Q7707
2SC3526H
Q7708
2SC3526H
Q7709
2SC3526H
Q7710
MSB709
2SB0709A0L
Q7715
2SD0601A0L
B1ABCC000004
Q7716
MSB709
2SB0709A0L
Q7711
MSB709
2SB0709A0L
D7707
MA3X152E0L
D7708
MA3X152K0L
COMP1
COMP2
R7782
47:51inch
39:43inch
SOUND+35
SOUND-GND
DAF-SW
BEAM-SW
TPA6
TPA7
STB5V
22
23
24
25
26

14.5. A-Board (4 of 4) Schematic Diagram

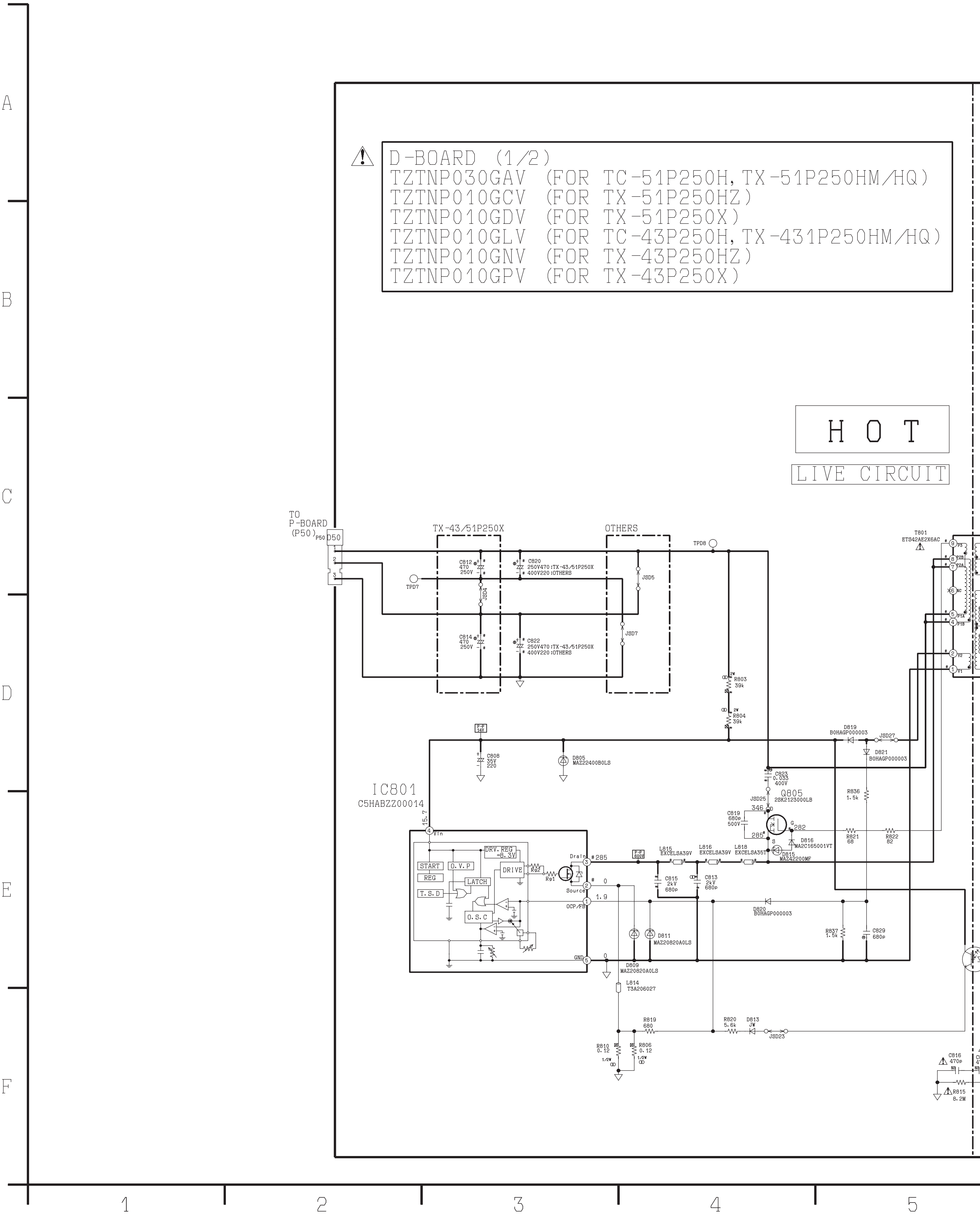


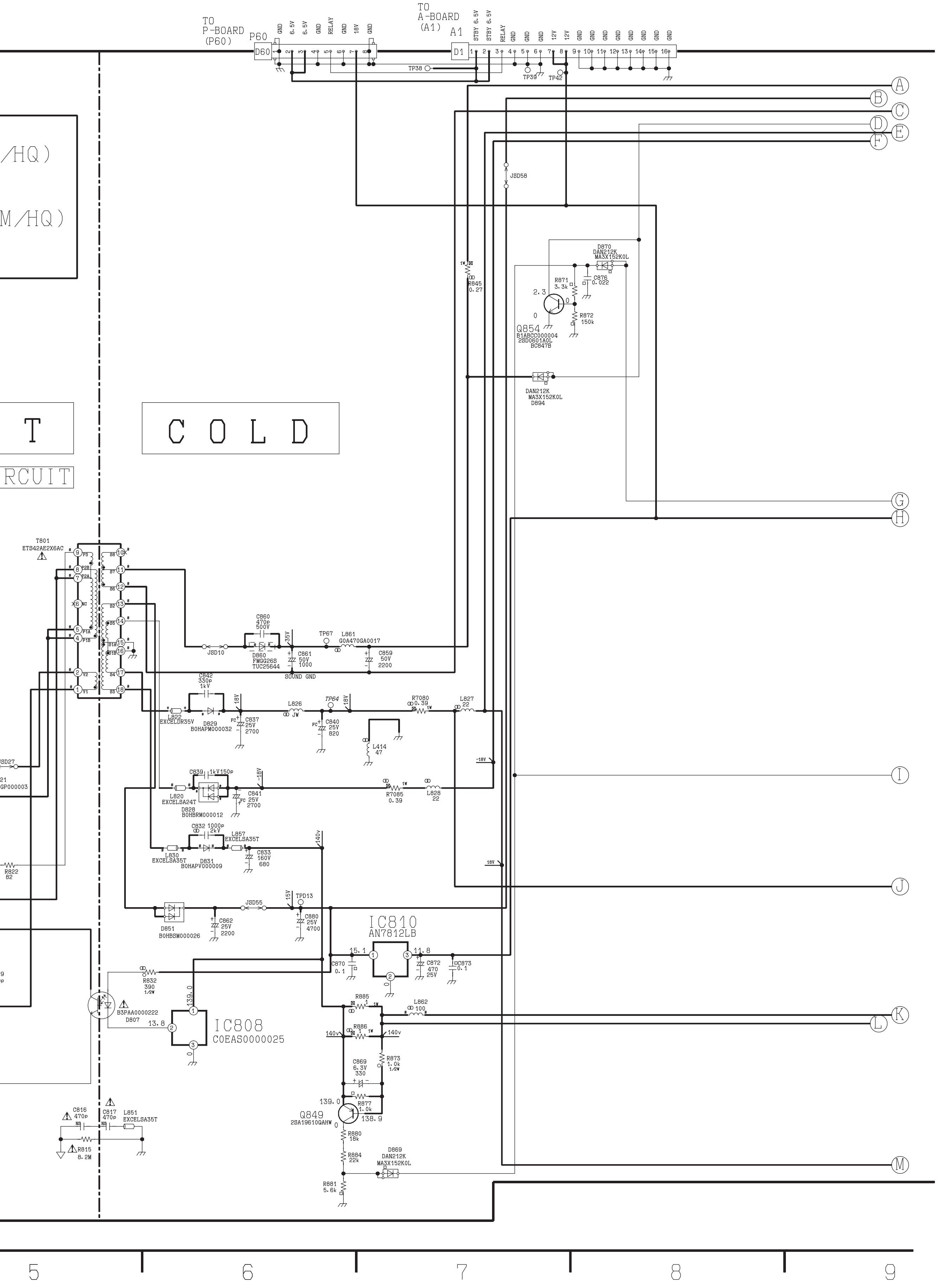
A
B
C
D
E
F
G
H
I
J
K
IC7121
C1AB00000454
SLV [4E]
IC7102
24LC64
EEPROM
IC7103
C0JBAB000003
IC7101
AN78L05M
IC7104
C0FBBH000040
IC7107
C1AB00001220
SLV [EC]
IC7110
C1AB00001394
Q7101
XN0150100L
IC7105
C0ABAA000053
IC7106
C0ABAA000053
IC7109
AN79L12M
IC7108
AN78L12M
Q7103
2SB0709A0L
Q7102
D7101
MA3X157A0L
D7102
MA3X152E0L
D7103
MA3X152K0L
43inch model
JS7108
26
27
28
29
30


3.3V
C7162 0.01
C7169 16V 47
C7170 16V 47
C7172 0.01
C7174 0.01
07
01220
RHOUT2
BVOUT2
GVOUT2
RVOUT2
BHOUT1
GHOUT1
RHOUT1
BVOUT1
GVOUT1
VDDI4
VSS6
RVOUT1
WCLK2
WCLK1
BCLK
YSIN
YMIN
BIN
GIN
RIN
YSOUT
VSS5
VDDI3
YMOUT
BOUT
BHO
GHO
RHO
BVO
GVO
RVO
WCLK
BCLK
C7175 0.01
C7176 0.01
R7128 3.0k
R7127 620
C7173 0.027
JS7106
C7171 0.01
C7193 100 16V
L7008 10
C7110
800001394
DG_B
YS
OUT B
GND
OUT G
OUT R
YS
DG_R
B_OSD
G_OSD
R_OSD
OSD_YS
7101
OSD_YM
YM_OSD
YS_OSD
R7129 470
R7130 100
R7126 470
43inch model
JS7108
Q7103
MSB709
2SB0709A0L
D7102
MA3X152E0L
R7189 270
R7188 180:51inch 82:43inch
R7187 10k
R7185 10k
R7186 2.7k
Q7102
B1ABCC000004
2SD0601A0L
C7194 16V 100
L7007 10
31
32
33
34

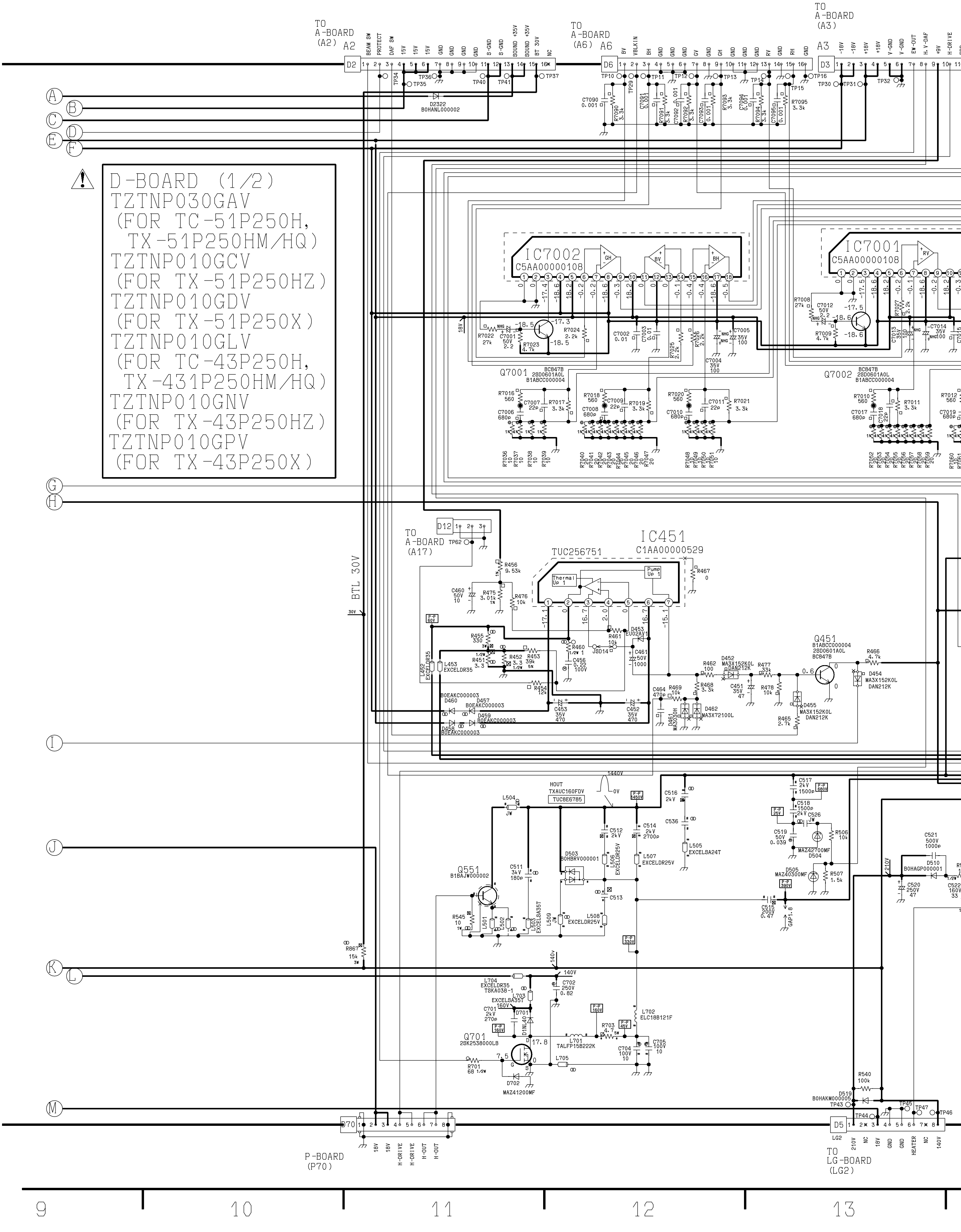
⚠ A-BOARD (4/4)
TZTNP010GAV (FOR TX-51P250 SERIES)
TZTNP010GEV (FOR TC-51P250H)
TZTNP020GLV (FOR TX-43P250 SERIES)
TZTNP010GQV (FOR TC-43P250H)

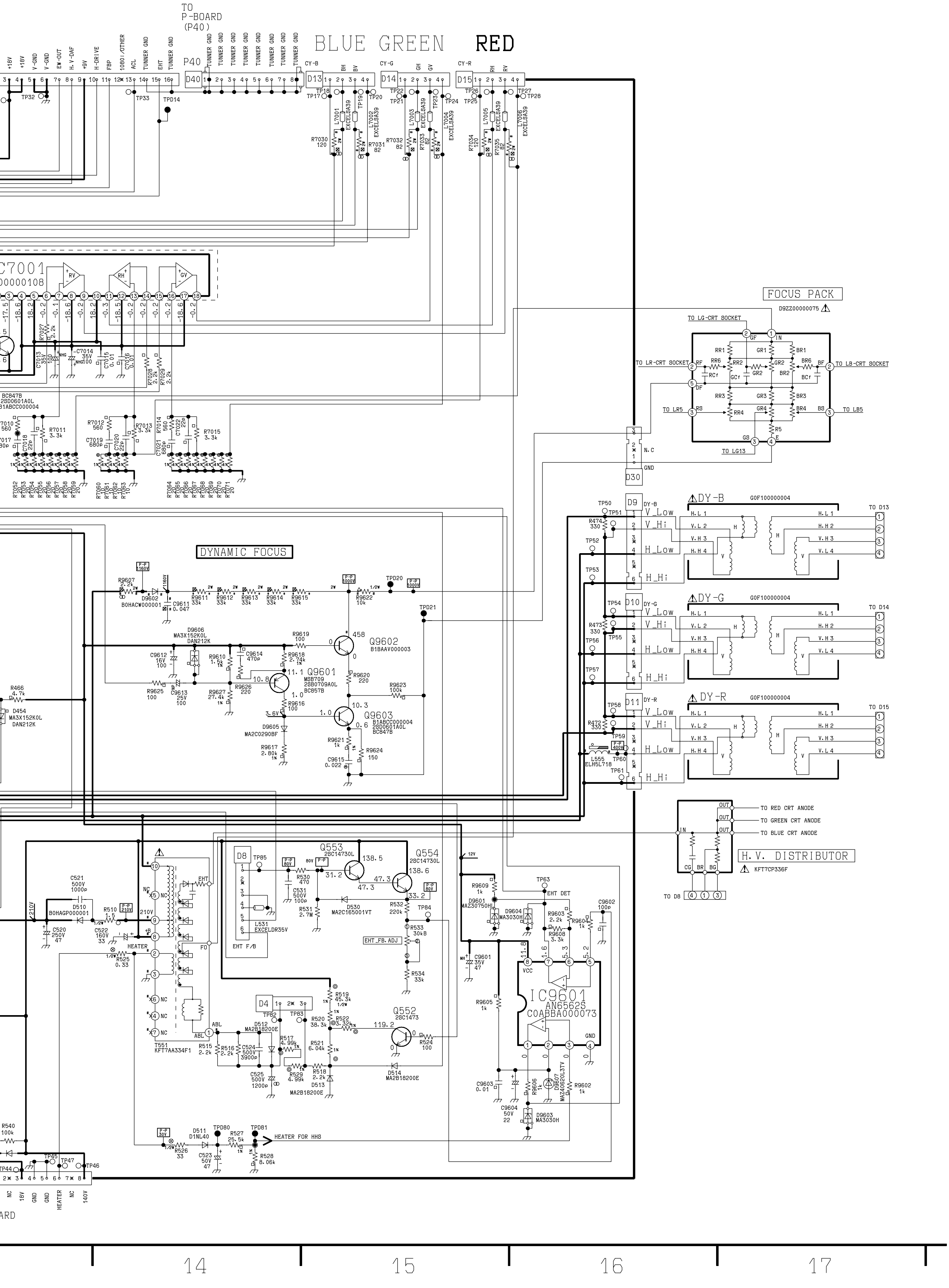
14.6. D-Board (1 of 2) Schematic Diagram


A
B
C
D
E
F
1
2
3
4
5
D-BOARD (1/2)
TZTNP030GAV (FOR TC-51P250H, TX-51P250HM/HQ)
TZTNP010GCV (FOR TX-51P250HZ)
TZTNP010GDV (FOR TX-51P250X)
TZTNP010GLV (FOR TC-43P250H, TX-431P250HM/HQ)
TZTNP010GNV (FOR TX-43P250HZ)
TZTNP010GPV (FOR TX-43P250X)
HOT
LIVE CIRCUIT
TO P-BOARD (P50)
P50
D50
TX-43/51P250X
OTHERS
C812 470 250V
C820 250V470:TX-43/51P250X 400V220:OTHERS
TPD7
JSD4
JSD5
C814 470 250V
C822 250V470:TX-43/51P250X 400V220:OTHERS
JSD7
TPD8
R803 39k 2W
R804 39k 2W
T801 ETS42AE2X6AC
P3
P2B
P2A
NC
P1A
P1B
V2
V1
D819 B0HAGP000003
JSD27
D821 B0HAGP000003
P-P 14V
C808 35V 220
D805 MAZ22400B0LS
IC801
C5HABZZ00014
15.7
Vin
DRV.REG =8.3V
START
O.V.P
REG
LATCH
DRIVE
T.S.D
O.S.C
Rg2
Rg1
Drain
Source
OCP/FB
GND
#285
0
1.9
0
P-P 600V
C823 0.033 400V
Q805 2SK2123000LB
JSD25
346
C819 680p 500V
285
282
D816 MA2C165001VT
D815 MAZ42200MF
R836 1.5k
R821 68
R822 82
L815 EXCELSA39V
L816 EXCELSA39V
L818 EXCELSA35T
C815 2kV 680p
C813 2kV 680p
D820 B0HAGP000003
D811 MAZ20820A0LS
D809 MAZ20820A0LS
R837 1.5k
C829 680p
L814 T3A206027
R819 680
R820 5.6k
D813 JW
JSD23
R810 0.12 1/2W
R806 0.12 1/2W
C816 470p
R815 8.2M

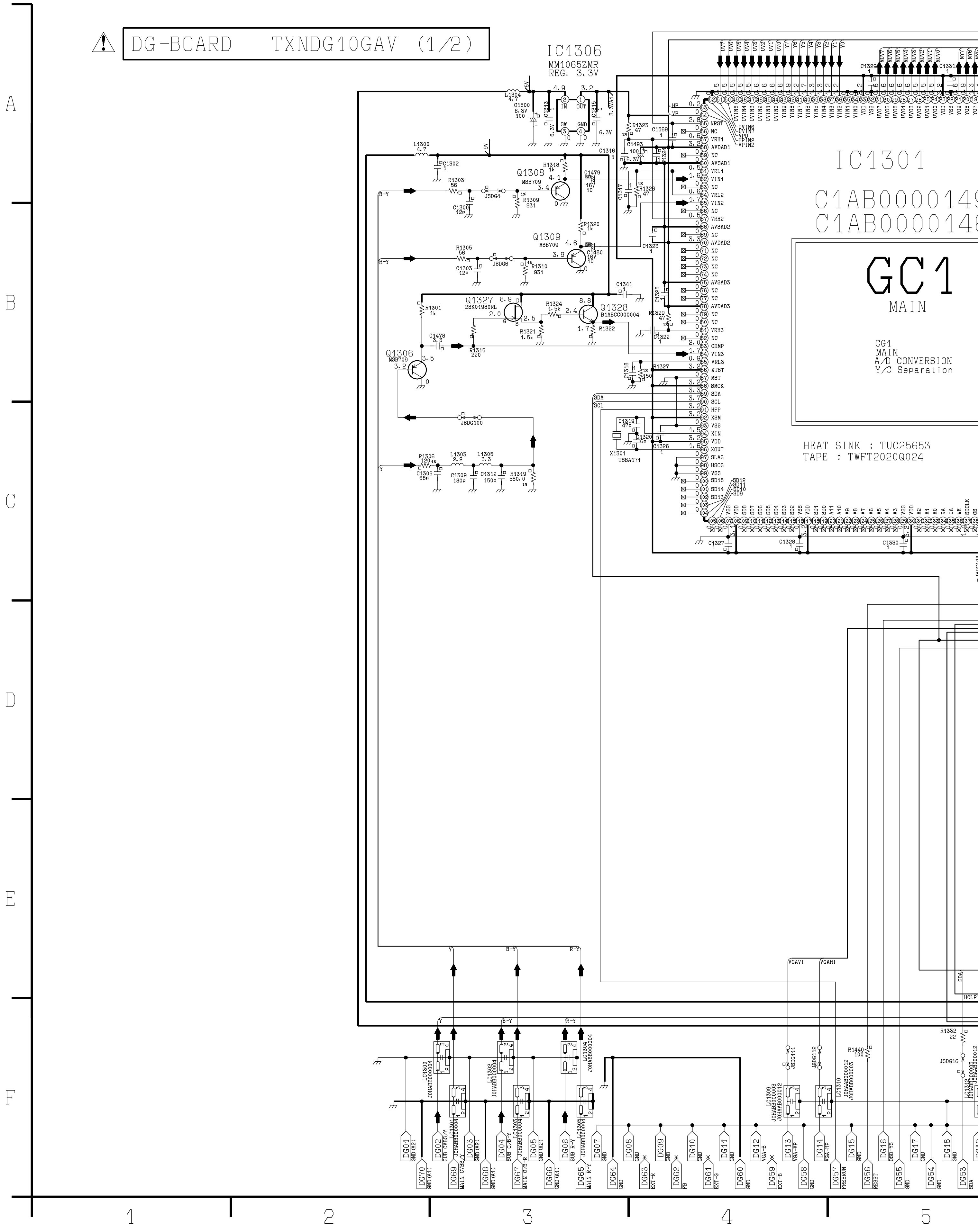

TO
P-BOARD
(P60)
P60
D60
GND
6.5V
6.5V
GND
RELAY
GND
18V
GND
TO
A-BOARD
(A1)
A1
D1
STBY 6.5V
STBY 6.5V
RELAY
GND
GND
GND
12V
12V
GND
TP38
TP39
TP42
A
B
C
D
E
F
JSD58
/HQ)
M/HQ)
D870
DAN212K
MA3X152K0L
R871
3.3k
C876
0.022
R872
150k
2.3
0
0
Q854
B1ABCC000004
2SD0601A0L
BC847B
R845
0.27
DAN212K
MA3X152K0L
D894
T
COLD
RCUIT
G
H
T801
ETS42AE2X6AC
C860
470p
500V
D860
FMGG26S
TUC25644
JSD10
35V
C861
50V
1000
SOUND GND
TP67
L861
G0A470GA0017
C859
50V
2200
C842
330p
1kV
L822
EXCELDR35V
D829
B0HAPM000032
18V
C837
25V
2700
L826
JW
TP64
18V
C840
25V
820
L414
47
R7080
0.39
L827
22
-18V
I
C839
1kV150p
L820
EXCELSA24T
D828
B0HBRM000012
-18V
C841
25V
2700
R7085
0.39
L828
22
C832
1000p
2kV
L857
EXCELSA35T
L830
EXCELSA35T
D831
B0HAPV000009
140V
C833
160V
680
18V
J
R822
82
D851
B0HBSM000026
C862
25V
2200
JSD55
15V
TPD13
C880
25V
4700
IC810
AN7812LB
15.1
11.8
C870
0.1
C872
470
25V
C873
0.1
R832
390
1/2W
139.0
B3PAA0000222
D807
13.8
IC808
C0EAS0000025
0
R885
1
L862
100
K
L
R886
1
140V
140V
C869
6.3V
330
R873
1.0k
1/2W
R877
1.0k
139.0
138.9
Q849
2SA1961OQAHW
R880
18k
R884
22k
D869
DAN212K
MA3X152K0L
R881
5.6k
M
C816
470p
C817
470p
L851
EXCELSA35T
R815
8.2M
5
6
7
8
9

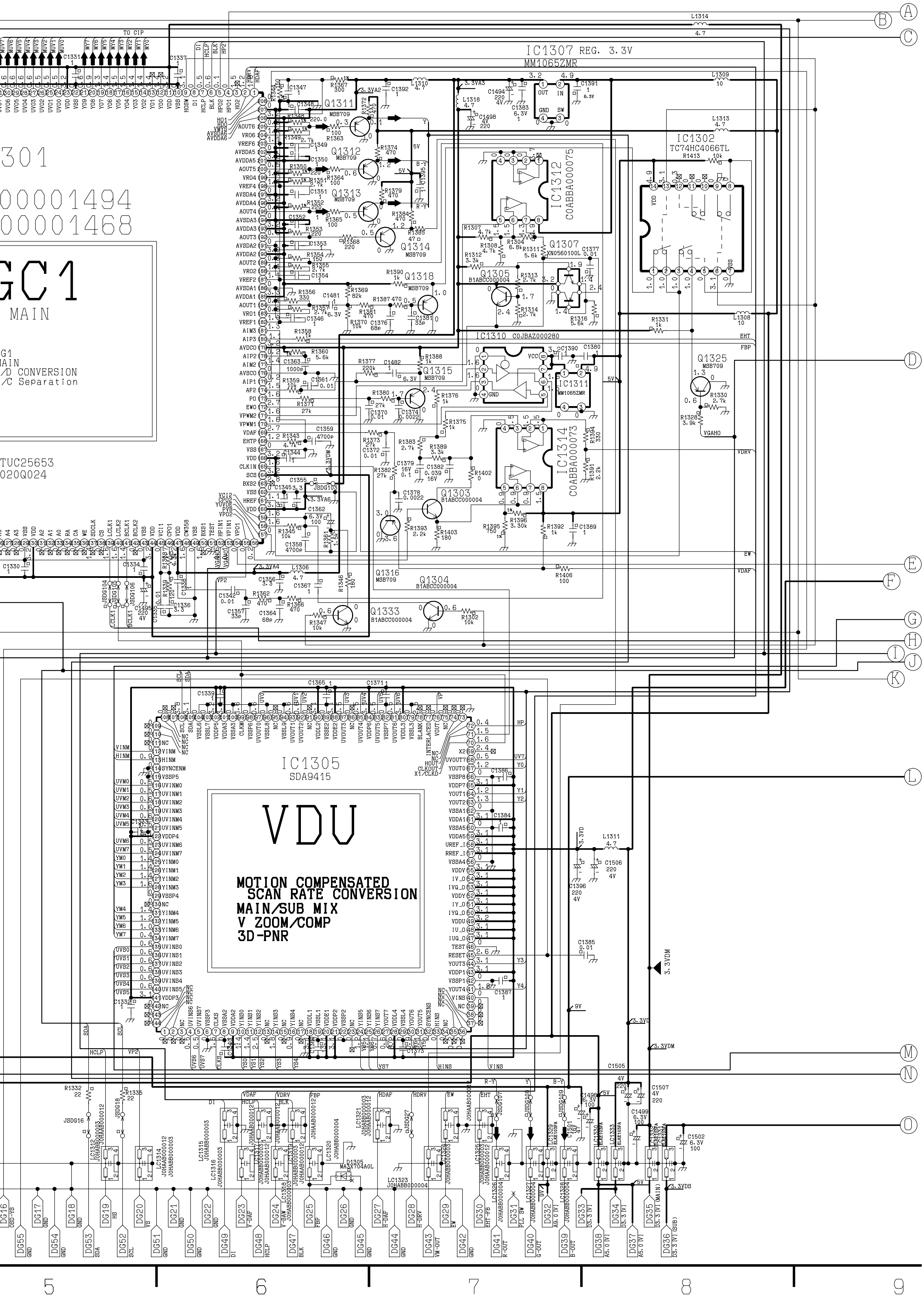
14.7. D-Board (2 of 2) Schematic Diagram


TO A-BOARD (A2)
A2
D2
BEAM SW
PROTECT
DAF SW
15V
15V
15V
GND
GND
GND
S-GND
S-GND
SOUND +35V
SOUND +35V
BT 30V
NC
TP34
TP35
TP36
TP37
TP40
TP41
D2322
B0HANL000002
TO A-BOARD (A6)
A6
D6
BV
VBLKIN
BH
GND
GND
GND
GV
GH
GND
GND
RV
GND
RH
GND
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP29
TO A-BOARD (A3)
A3
D3
-18V
-18V
+18V
+18V
V-GND
V-GND
EW-OUT
H.V-DAF
+9V
H-DRIVE
TP30
TP31
TP32
C7090 0.001
R7090 3.3k
C7091 0.001
R7091 3.3k
C7092 0.001
R7092 3.3k
C7093 0.001
R7093 3.3k
C7094 0.001
R7094 3.3k
C7095 0.001
R7095 3.3k
A
B
C
D
E
F
G
H
I
J
K
L
M
D-BOARD (1/2)
TZTNP030GAV
(FOR TC-51P250H, TX-51P250HM/HQ)
TZTNP010GCV
(FOR TX-51P250HZ)
TZTNP010GDV
(FOR TX-51P250X)
TZTNP010GLV
(FOR TC-43P250H, TX-431P250HM/HQ)
TZTNP010GNV
(FOR TX-43P250HZ)
TZTNP010GPV
(FOR TX-43P250X)
IC7002
C5AA00000108
GH
BV
BH
IC7001
C5AA00000108
RV
Q7001
BC847B
2SD0601A0L
B1ABCC000004
Q7002
BC847B
2SD0601A0L
B1ABCC000004
R7022 27k
C7001 50V 2.2
R7023 4.7k
R7024 2.2k
C7002 0.01
C7003 0.01
R7025 2.2k
C7004 35V 100
C7005 35V 100
R7008 27k
C7012 50V 2.2
R7009 4.7k
C7013 35V
C7014 35V 100
R7016 560
C7006 680p
C7007 22p
R7017 3.3k
R7018 560
C7008 680p
C7009 22p
R7019 3.3k
R7020 560
C7010 680p
C7011 22p
R7021 3.3k
R7010 560
C7017 680p
C7018 22p
R7011 3.3k
R7012 560
C7019 680p
R7036 10
R7037 10
R7038 10
R7039 10
R7040
R7041
R7042
R7043
R7044
R7045
R7046
R7047
R7048
R7049
R7050
R7051
R7052
R7053
R7054
R7055
R7056
R7057
R7058
R7059
R7060
18V
-18.5
-17.3
-18.5
-17.5
-18.6
-18.6
BTL 30V
30V
TO A-BOARD (A17)
D12
TP62
IC451
C1AA00000529
TUC256751
Thermal Up 1
Pump Up 1
R456 9.53k
R467 0
C460 50V 10
R475 3.01k
R476 10k
R455 330
R451 3.3
R452 3.3
R453 39k
L452 EXCELDR35
L453 EXCELDR35
R454 12k
R460 1
R461 10k
C456 0.22 100V
D453 EU02AY1
C461 50V 1000
JS014
C453 35V 470
C452 35V 470
B0EAKC000003
D460
D457
B0EAKC000003
D459
B0EAKC000003
D458
B0EAKC000003
-17.1
16.7
2.0
16.7
-15.1
R462 100
D452 MA3X152K0L DAN212K
R477 33k
C464 470p
R469 10k
R468 3.3k
C451 35V 47
R478 10k
D461 MA3030H
D462 MA3X72100L
Q451
B1ABCC000004
2SD0601A0L
BC847B
0.6
R466 4.7k
D454 MA3X152K0L DAN212K
D455 MA3X152K0L DAN212K
R465 2.7k
HOUT
TXAUC160FDV
TUCBE6785
1440V
0V
L504 JW
C516 2kV
C536
C512 2kV
C514 2kV 2700p
D503 B0HBRV000001
L506 EXCELDR25V
L507 EXCELDR25V
L505 EXCELSA24T
C513
Q551
B1BAJW000002
C511 3kV 180p
R545 10
L501
L502
L503 EXCELSA35T
L509 JW
L508 EXCELDR25V
C517 2kV 1500p
C518 1500p
C526 2kV
C519 50V 0.039
R506 10k
MAZ42700MF
D504
D505 MAZ40300MF
R507 1.5k
C515 200V 0.47
GAP1.8
C521 500V 1000p
D510 B0HAGP000001
210V
C520 250V 47
C522 160V 33
R867 15k
140V
L704 EXCELDR35 TSKA038-1
L703 EXCELSA35T
C702 250V 0.82
C701 2kV 270p
D701 D1NL40
L702 ELC18B121F
Q701
2SK2538000LB
17.8
7.5
0
R701 68
D702 MAZ41200MF
L701 TALFP15B222K
R703 4.7
L705
C704 100V 10
C705 100V 10
R540 100k
D519 B0HAKM000005
TP43
TP44
TP45
TP46
TP47
D70
P-BOARD (P70)
18V
18V
H-DRIVE
H-DRIVE
H-OUT
H-OUT
D5
LG2
TO LG-BOARD (LG2)
210V
NC
18V
GND
GND
HEATER
NC
140V
9
10
11
12
13

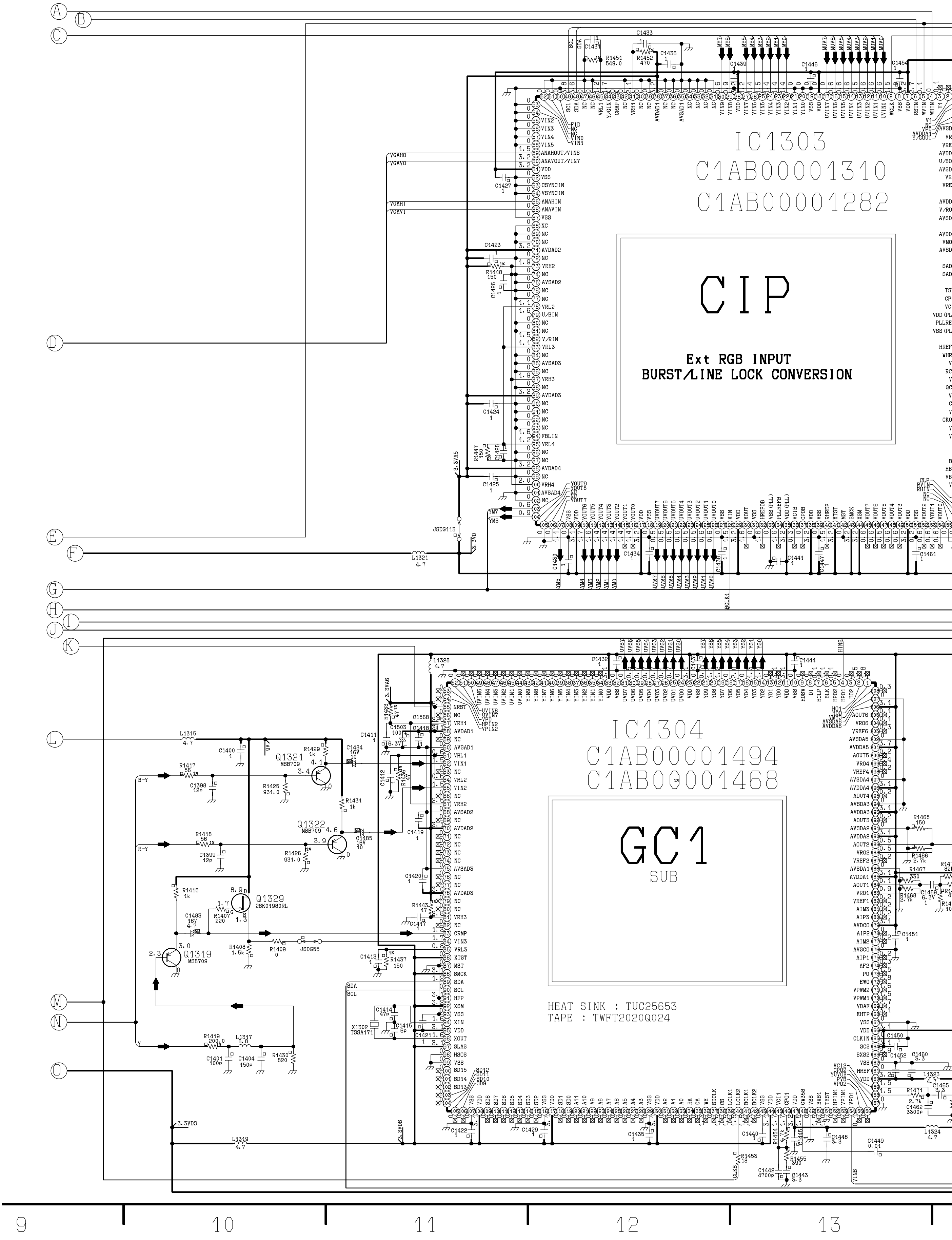
TO P-BOARD (P40)
BLUE GREEN RED
P40
D40
D13
D14
D15
CY-B
CY-G
CY-R
IC7001
FOCUS PACK
D9ZZ00000075
TO LG-CRT SOCKET
TO LR-CRT SOCKET
TO LB-CRT SOCKET
TO LR5
TO LB5
TO LG13
D30
N.C
GND
DYNAMIC FOCUS
Q9601
Q9602
Q9603
DY-B
DY-G
DY-R
G0F100000004
V_Low
V_Hi
H_Low
H_Hi
TO D13
TO D14
TO D15
D9
D10
D11
L555
ELH5L718
H.V. DISTRIBUTOR
KFT7CP336F
TO RED CRT ANODE
TO GREEN CRT ANODE
TO BLUE CRT ANODE
TO D8
Q553
2SC14730L
Q554
2SC14730L
Q552
2SC1473
T551
KFT7AA334F1
EHT F/B
L531
EXCELDR35V
D8
D4
EHT FB. ADJ
EHT DET
IC9601
AN6562S
C0ABBA000073
HEATER
HEATER FOR HHS
ABL
14
15
16
17

14.8. DG-Board (1 of 2) Schematic Diagram

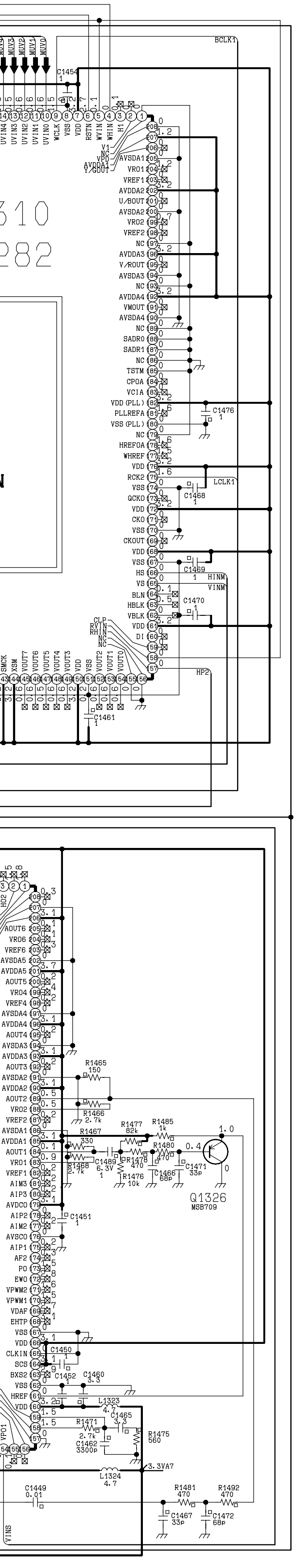

DG-BOARD TXNDG10GAV (1/2)
IC1306
MM1065ZMR
REG. 3.3V
IC1301
C1AB0000149
C1AB0000146
GC1
MAIN
CG1
MAIN
A/D CONVERSION
Y/C Separation
HEAT SINK : TUC25653
TAPE : TWFT2020Q024
Q1308
MSB709
Q1309
MSB709
Q1327
2SK01980RL
Q1328
B1ABCC000004
Q1306
MSB709
X1301
TSSA171
L1304
L1300
L1303
L1305
B-Y
R-Y
Y
SDA
SCL
VGAVI
VGAHI
JSDG4
JSDG6
JSDG100
LC1300
LC1301
LC1302
LC1303
LC1304
LC1305
LC1309
LC1310
LC1312
DG01 GND(A2)
DG02 SUB CVBS/Y
DG03 GND(A2)
DG04 SUB C/B-Y
DG05 GND(A2)
DG06 SUB R-Y
DG07 GND
DG08 GND
DG09 GND
DG10 GND
DG11 GND
DG12 VGA-B
DG13 VGA-VP
DG14 VGA-HP
DG15 GND
DG16 OSD-YS
DG17 GND
DG18 GND
DG70 GND(A1)
DG69 MAIN CVBS/Y
DG68 GND(A1)
DG67 MAIN C/B-R
DG66 GND(A1)
DG65 MAIN R-Y
DG64 GND
DG63 EXT-R
DG62 FB
DG61 EXT-G
DG60 GND
DG59 EXT-B
DG58 GND
DG57 FREERUN
DG56 RESET
DG55 GND
DG54 GND
DG53 SDA
A
B
C
D
E
F
1
2
3
4
5

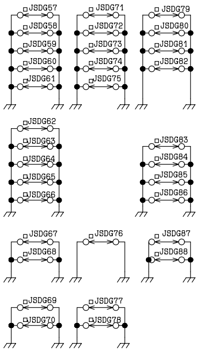

IC1307 REG. 3.3V
MM1065ZMR
IC1302
TC74HC4066TL
IC1312
C0ABBA000075
IC1310 C0JBAZ000280
IC1311
MM1065ZMR
IC1314
C0ABBA000073
Q1311 MSB709
Q1312 MSB709
Q1313 MSB709
Q1314 MSB709
Q1318 MSB709
Q1315 MSB709
Q1305 B1ABCC000004
Q1307 XN0560100L
Q1325 MSB709
Q1303 B1ABCC000004
Q1316 MSB709
Q1304 B1ABCC000004
Q1333 B1ABCC000004
301
00001494
00001468
GC1
MAIN
G1
MAIN
/D CONVERSION
/C Separation
TUC25653
020Q024
TO CIP
IC1305
SDA9415
VDU
MOTION COMPENSATED
SCAN RATE CONVERSION
MAIN/SUB MIX
V ZOOM/COMP
3D-PNR
L1314
L1309
L1313
L1308
L1311
L1306
L1310
L1318
3.3VDM
3.3VD
3.3VDS
9V
5V
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
EHT
FBP
VDRV
EW
VDAF
HP
VGAHO
D1
HCLP
VP2
SDA
SCL
R-Y
Y
B-Y
DG16
DG17
DG18
DG19 HS
DG20 VS
DG21
DG22 GND
DG23 V-DAF
DG24 V-DRIVE
DG25 FBP
DG26 GND
DG27 H-DAF
DG28 H-DRV
DG29 EW
DG30 EHT-FB
DG31 PLL SW
DG32 A5.0(V)
DG33 D3.3(V)
DG34 D3.3(V)
DG35 D3.3(V)(MAIN)
DG55 GND
DG54 GND
DG53 SDA
DG52 SCL
DG51 GND
DG50 GND
DG49 D1
DG48 HCLP
DG47 BLK
DG46 GND
DG45 GND
DG44 GND
DG43 VM-OUT
DG42 GND
DG41 R-OUT
DG40 G-OUT
DG39 B-OUT
DG38 A5.0(V)
DG37 A5.0(V)
DG36 D3.3(V)(SUB)
D1305 MA2X704A0L
LC1323 J0HABB000004
5
6
7
8
9

14.9. DG-Board (2 of 2) Schematic Diagram


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
IC1303
C1AB00001310
C1AB00001282
CIP
Ext RGB INPUT
BURST/LINE LOCK CONVERSION
IC1304
C1AB00001494
C1AB00001468
GC1
SUB
HEAT SINK : TUC25653
TAPE : TWFT2020Q024
Q1321 MSB709
Q1322 MSB709
Q1329 2SK01980RL
Q1319 MSB709
X1302 TSSA171
L1315 4.7
L1317 6.8
L1319 4.7
L1321 4.7
L1328 4.7
L1324 4.7
JSDG113
JSDG55
3.3VA5
3.3VA6
3.3VD
3.3VDS
VGAH0
VGAV0
VGAH1
VGAV1
B-Y
R-Y
Y
SDA
SCL
BCLK1
9
10
11
12
13

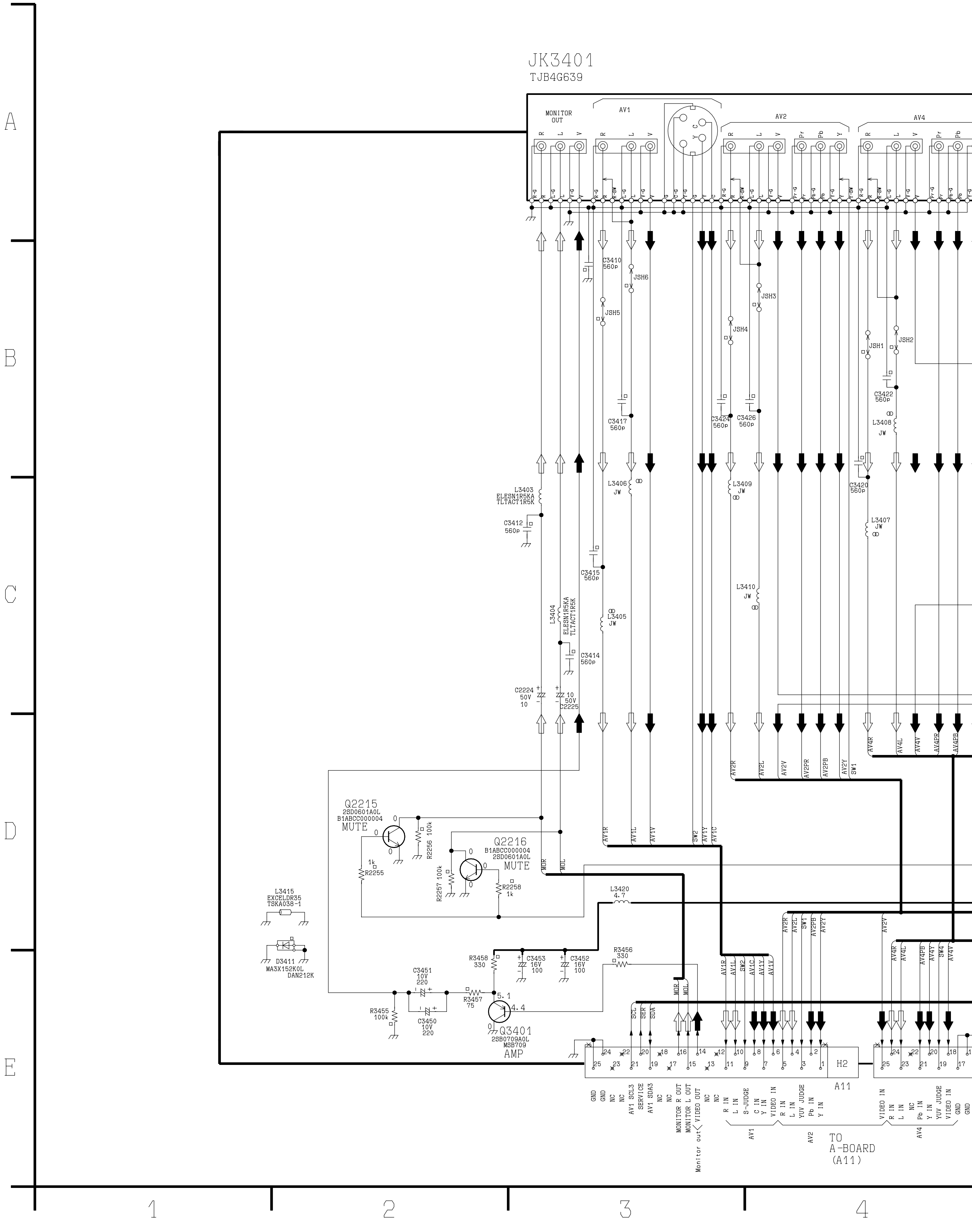
⚠ DG-BOARD TXNDG10GAV (2/2)

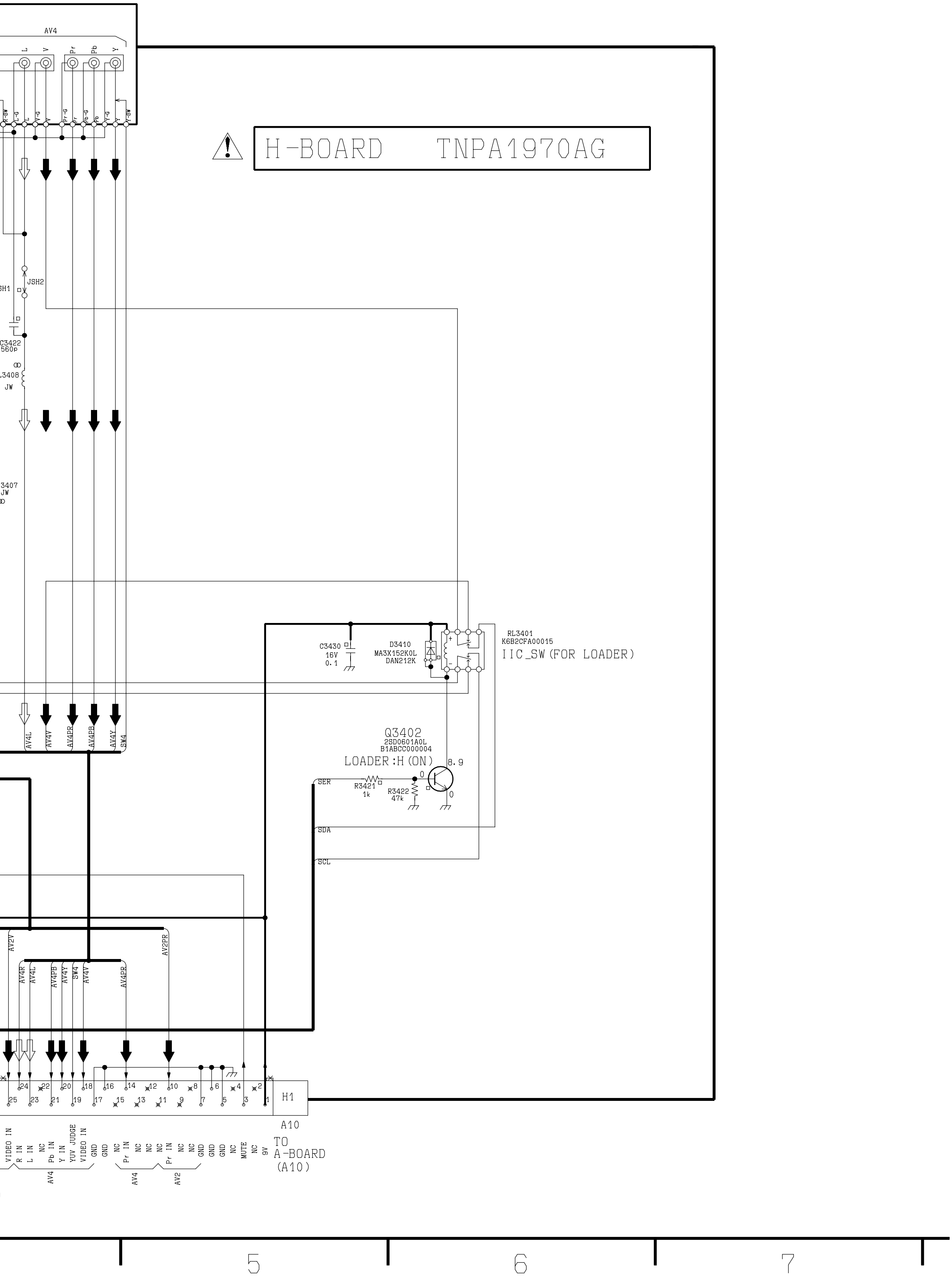

BCLK1
C1454
1
C1476
1
LCLK1
C1468
1
C1469
1
HINW
VINW
C1470
1
HP2
C1461
1
310
282
R1465
150
R1466
2.7k
R1467
330
R1477
82k
R1485
1k
R1480
470
R1478
470
R1476
10k
C1489
6.3V
1
R1468
2.7k
C1466
68p
C1471
33p
1.0
0.4
Q1326
MSB709
C1451
1
C1450
1
C1452
C1460
3.3
L1323
4.7
C1465
3.3
R1471
2.7k
C1462
3300p
R1475
560
3.3VA7
L1324
4.7
C1449
0.01
R1481
470
R1492
470
C1467
33p
C1472
68p
VIN8


JSDG57
JSDG58
JSDG59
JSDG60
JSDG61
JSDG71
JSDG72
JSDG73
JSDG74
JSDG75
JSDG79
JSDG80
JSDG81
JSDG82
JSDG62
JSDG63
JSDG64
JSDG65
JSDG66
JSDG83
JSDG84
JSDG85
JSDG86
JSDG67
JSDG68
JSDG76
JSDG87
JSDG88
JSDG69
JSDG70
JSDG77
JSDG78

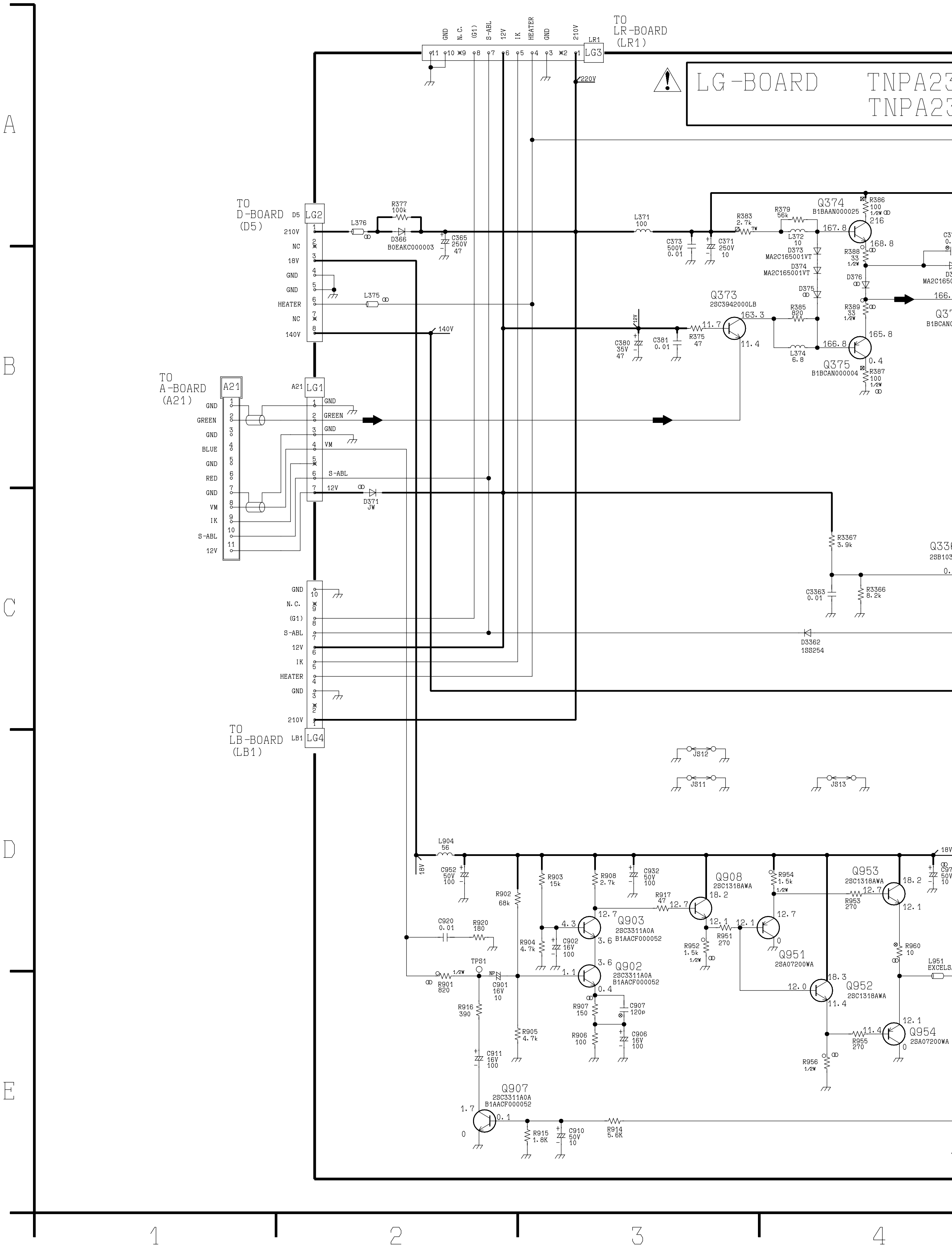
14 15 16 17

14.10. H-Board Schematic Diagram

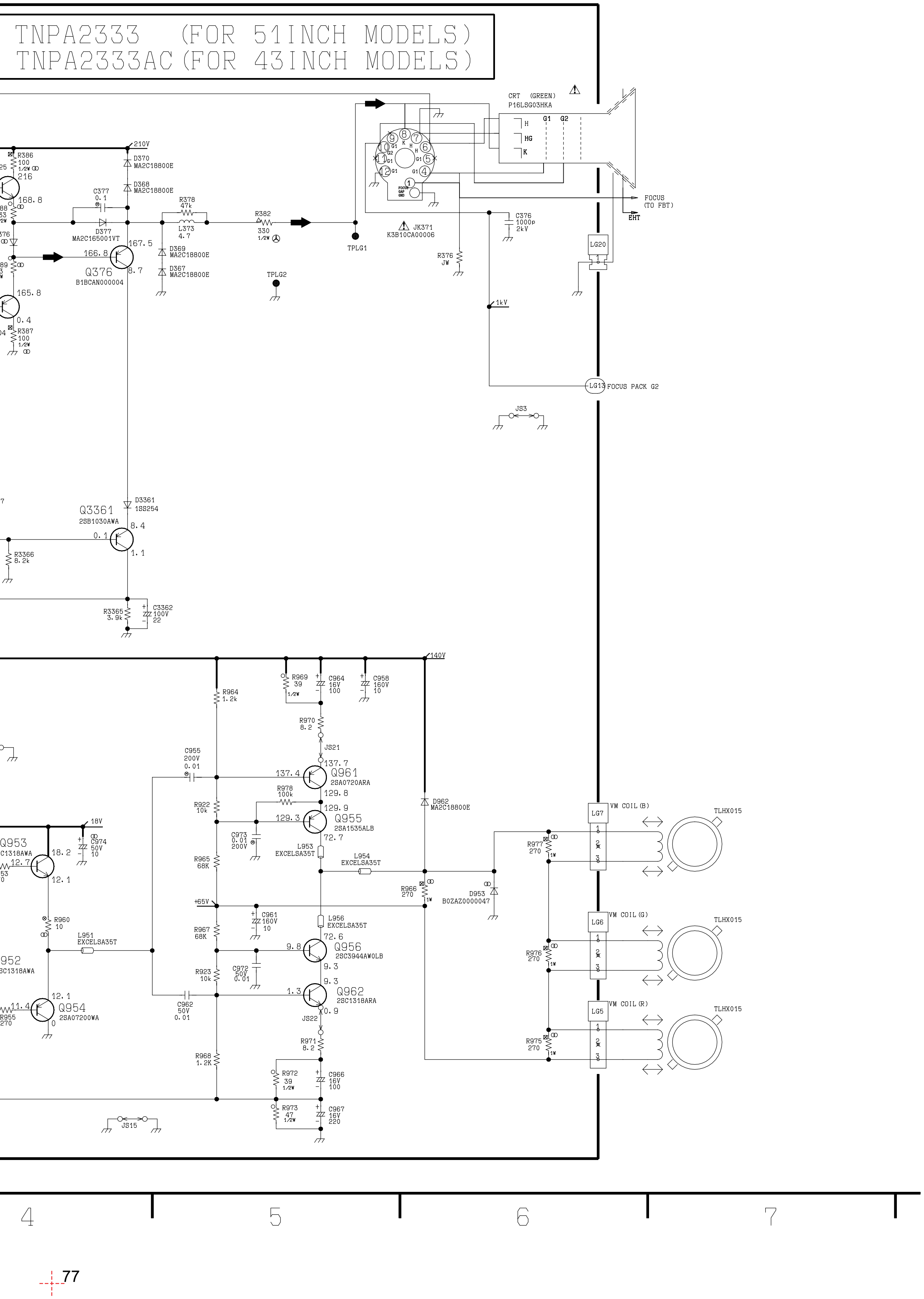

A
B
C
D
E
1
2
3
4
JK3401
TJB4G639
MONITOR OUT
AV1
AV2
AV4
R
L
V
Pr
Pb
Y
C
C3410 560p
JSH6
JSH5
JSH3
JSH4
JSH1
JSH2
C3422 560p
C3417 560p
C3424 560p
C3426 560p
L3408 JW
L3403 ELESN1R5KA TLTACT1R5K
C3412 560p
L3406 JW
L3409 JW
C3420 560p
L3407 JW
C3415 560p
L3410 JW
L3404 ELESN1R5KA TLTACT1R5K
L3405 JW
C3414 560p
C2224 50V 10
10 50V C2225
AV4R
AV4L
AV4V
AV4PR
AV4PB
AV2R
AV2L
AV2V
AV2PR
AV2PB
AV2Y
SW1
Q2215
2SD0601A0L
B1ABCC000004
MUTE
R2256 100k
1k R2255
Q2216
B1ABCC000004
2SD0601A0L
MUTE
R2257 100k
R2258 1k
AV1R
AV1L
AV1V
SW2
AV1Y
AV1C
MOR
MOL
L3415
EXCELDR35
TSKA038-1
L3420 4.7
D3411
MA3X152K0L
DAN212K
R3458 330
C3453 16V 100
C3452 16V 100
R3456 330
C3451 10V 220
C3450 10V 220
R3457 75
R3455 100k
5.1
4.4
Q3401
2SB0709A0L
MSB709
AMP
SCL
SER
SDA
AV1R
AV1L
SW2
AV1C
AV1Y
AV1V
AV2R
AV2L
SW1
AV2PB
AV2Y
AV2V
AV4R
AV4L
AV4PB
AV4Y
SW4
AV4V
H2
A11
GND
GND
NC
NC
AV1 SCL3
SERVICE
AV1 SDA3
NC
NC
MONITOR R OUT
MONITOR L OUT
VIDEO OUT
Monitor out
NC
NC
R IN
L IN
S-JUDGE
C IN
Y IN
VIDEO IN
R IN
L IN
YUV JUDGE
Pb IN
Y IN
VIDEO IN
R IN
L IN
NC
Pb IN
Y IN
YUV JUDGE
VIDEO IN
GND
GND
AV1
AV2
AV4
TO
A-BOARD
(A11)


H-BOARD TNPA1970AG
AV4
L
V
Pr
Pb
Y
L-G
V-G
Pr-G
Pb-G
Y-G
JSH2
C3422
560p
L3408
JW
3407
JW
RL3401
K6B2CFA00015
IIC_SW(FOR LOADER)
C3430
16V
0.1
D3410
MA3X152K0L
DAN212K
Q3402
2SD0601A0L
B1ABCC000004
LOADER:H(ON)
8.9
0
0
R3421
1k
R3422
47k
SER
SDA
SCL
AV4L
AV4V
AV4PR
AV4PB
AV4Y
SW4
AV2V
AV2PR
AV4R
AV4L
AV4PB
AV4Y
SW4
AV4V
AV4PR
H1
A10
VIDEO IN
R IN
L IN
NC
Pb IN
Y IN
YUV JUDGE
VIDEO IN
GND
GND
NC
Pr IN
NC
NC
NC
Pr IN
NC
NC
GND
GND
GND
NC
MUTE
NC
9V
AV4
AV4
AV2
TO
A-BOARD
(A10)
5
6
7

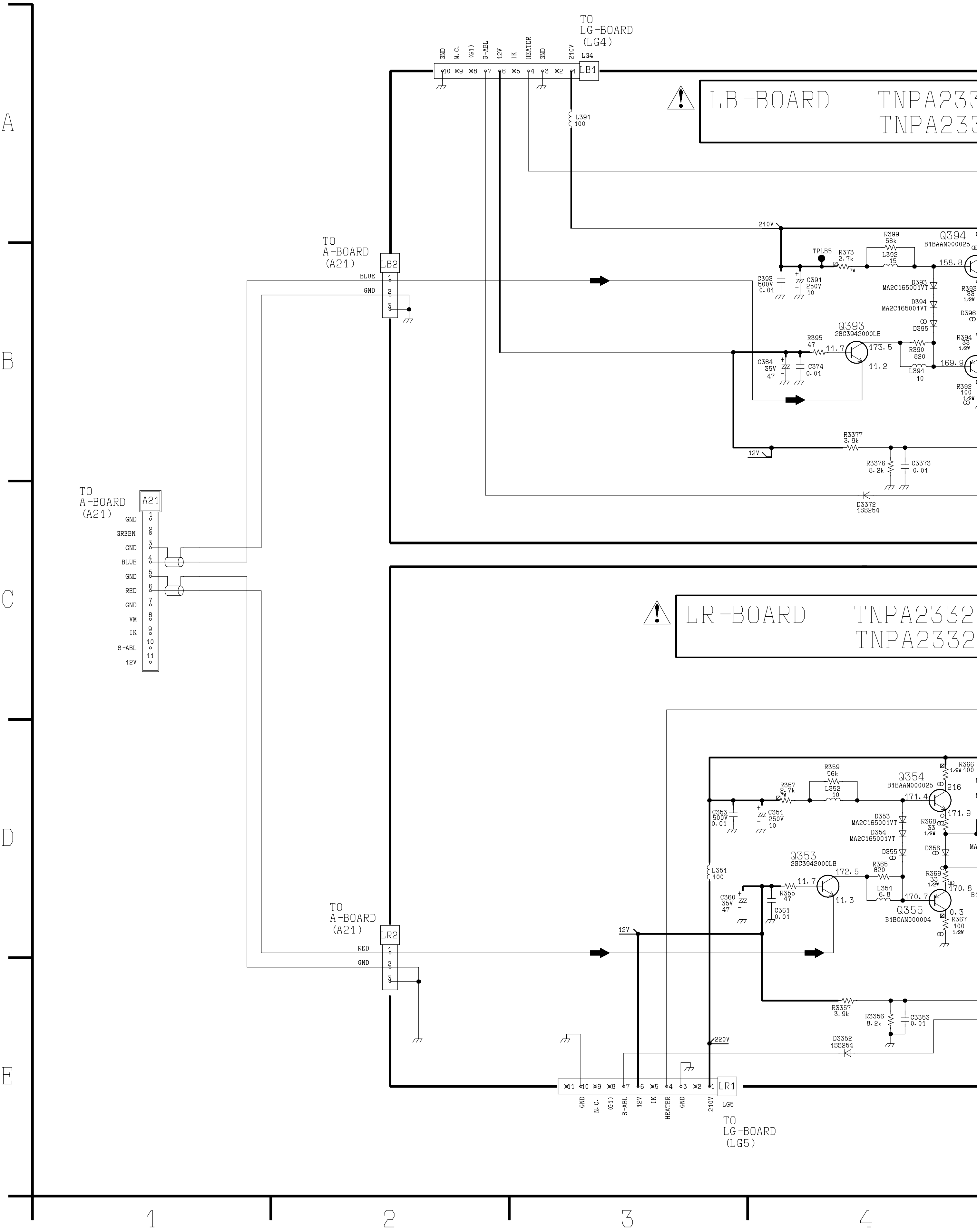
14.11. LG-Board Schematic Diagram


LG-BOARD TNPA23
TNPA23
TO LR-BOARD (LR1)
LR1
LG3
GND
N.C.
(G1)
S-ABL
12V
IK
HEATER
GND
210V
220V
TO D-BOARD (D5)
D5
LG2
210V
NC
18V
GND
GND
HEATER
NC
140V
140V
R377 100k
L376
D366 B0EAKC000003
C365 250V 47
L375
L371 100
C373 500V 0.01
C371 250V 10
R383 2.7k
R379 56k
L372 10
D373 MA2C165001VT
D374 MA2C165001VT
D375
Q374 B1BAAN000025
R386 100 1/2W
167.8
216
168.8
R388 33 1/2W
D376
MA2C165
R389 33 1/2W
166.
Q37
B1BCAN
Q373 2SC3942000LB
163.3
11.7
11.4
R375 47
C380 35V 47
C381 0.01
12V
R385 820
L374 6.8
166.8
165.8
0.4
Q375 B1BCAN000004
R387 100 1/2W
TO A-BOARD (A21)
A21
LG1
GND
GREEN
GND
BLUE
GND
RED
GND
VM
IK
S-ABL
12V
GND
GREEN
GND
VM
S-ABL
12V
D371 JW
R3367 3.9k
Q33
2SB103
0.
C3363 0.01
R3366 8.2k
D3362 1SS254
GND
N.C.
(G1)
S-ABL
12V
IK
HEATER
GND
210V
TO LB-BOARD (LB1)
LB1
LG4
JS12
JS11
JS13
L904 56
18V
C952 50V 100
R902 68k
R903 15k
R908 2.7k
C932 50V 100
Q908 2SC1318AWA
18.2
R917 47
12.7
R954 1.5k 1/2W
Q953 2SC1318AWA
18.2
12.7
R953 270
12.1
18V
C97 50V 10
C920 0.01
R920 180
R904 4.7k
4.3
C902 16V 100
12.7
Q903 2SC3311A0A B1AACF000052
3.6
R952 1.5k 1/2W
12.1
12.1
R951 270
12.7
0
Q951 2SA07200WA
R960 10
L951 EXCELS
TPS1
NP
R901 820
1/2W
C901 16V 10
1.1
3.6
Q902 2SC3311A0A B1AACF000052
0.4
R907 150
C907 120p
R906 100
C906 16V 100
R916 390
R905 4.7k
C911 16V 100
18.3
12.0
Q952 2SC1318AWA
11.4
R955 270
11.4
12.1
Q954 2SA07200WA
0
R956 1/2W
Q907 2SC3311A0A B1AACF000052
1.7
0.1
0
R915 1.8K
C910 50V 10
R914 5.6K
A
B
C
D
E
1
2
3
4

TNPA2333 (FOR 51INCH MODELS)
TNPA2333AC (FOR 43INCH MODELS)

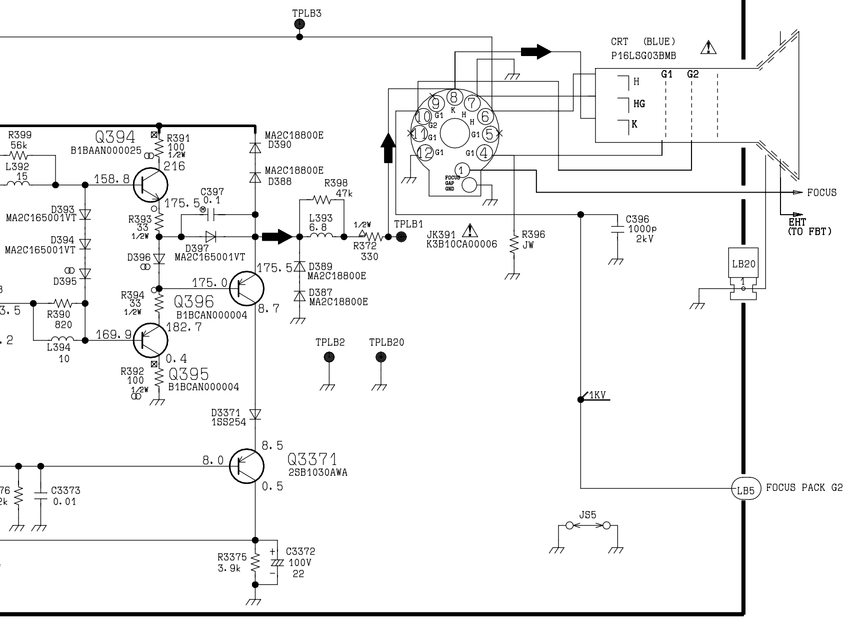

CRT (GREEN)
P16LSG03HKA
G1 G2
H
HG
K
FOCUS
(TO FBT)
EHT
LG20
JK371
K3B10CA00006
C376
1000p
2kV
R376
JW
1kV
LG13 FOCUS PACK G2
JS3
TPLG1
TPLG2
210V
R386
100
1/2W
216
D370
MA2C18800E
D368
MA2C18800E
C377
0.1
168.8
R378
47k
L373
4.7
R382
330
1/2W
D377
MA2C165001VT
167.5
166.8
Q376
B1BCAN000004
8.7
D369
MA2C18800E
D367
MA2C18800E
165.8
0.4
R387
100
1/2W
D3361
1SS254
Q3361
2SB1030AWA
0.1
8.4
1.1
R3366
8.2k
R3365
3.9k
C3362
100V
22
140V
R964
1.2k
R969
39
1/2W
C964
16V
100
C958
160V
10
R970
8.2
JS21
C955
200V
0.01
137.7
137.4
Q961
2SA0720ARA
129.8
R978
100k
R922
10k
129.9
129.3
Q955
2SA1535ALB
72.7
C973
0.01
200V
L953
EXCELSA35T
L954
EXCELSA35T
D962
MA2C18800E
R966
270
1W
D953
B0ZAZ0000047
18V
Q953
2SC1318AWA
18.2
12.7
C974
50V
10
12.1
R965
68K
+65V
C961
160V
10
L956
EXCELSA35T
72.6
R960
10
L951
EXCELSA35T
R967
68K
9.8
Q956
2SC3944AW0LB
9.3
952
2SC1318AWA
R923
10k
C972
50V
0.01
9.3
1.3
Q962
2SC1318ARA
12.1
11.4
Q954
2SA07200WA
R955
270
0
C962
50V
0.01
0.9
JS22
R971
8.2
R968
1.2K
R972
39
1/2W
C966
16V
100
R973
47
1/2W
C967
16V
220
JS15
LG7 VM COIL (B)
TLHX015
R977
270
1W
LG6 VM COIL (G)
TLHX015
R976
270
1W
LG5 VM COIL (R)
TLHX015
R975
270
1W
4
5
6
7

14.12. LB and LR-Board Schematic Diagram

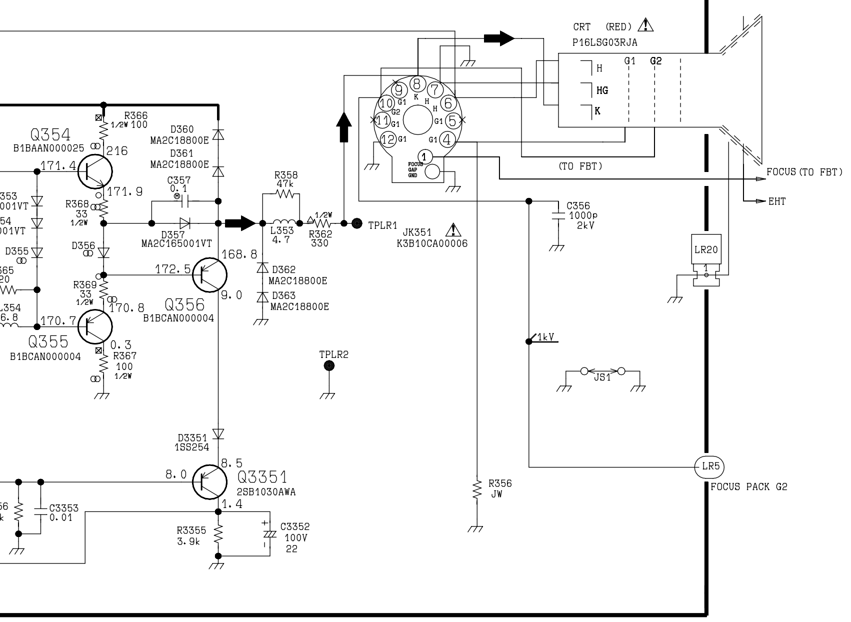


TO LG-BOARD (LG4)
GND
N.C.
(G1)
S-ABL
12V
IK
HEATER
GND
210V
LG4
LB1
LB-BOARD TNPA233
TNPA233
L391 100
210V
R399 56k
Q394
B1BAAN000025
TPLB5
R373 2.7k
L392 15
158.8
C393 500V 0.01
C391 250V 10
D393 MA2C165001VT
D394 MA2C165001VT
R393 33 1/2W
D396
D395
Q393 2SC3942000LB
R395 47
11.7
173.5
R390 820
R394 33 1/2W
C364 35V 47
C374 0.01
11.2
L394 10
169.9
R392 100 1/2W
R3377 3.9k
12V
R3376 8.2k
C3373 0.01
D3372 1SS254
TO A-BOARD (A21)
LB2
BLUE
GND
TO A-BOARD (A21)
A21
GND
GREEN
GND
BLUE
GND
RED
GND
VM
IK
S-ABL
12V
LR-BOARD TNPA2332
TNPA2332
R359 56k
R366 1/2W 100
Q354
B1BAAN000025
216
R357 2.7k
L352 10
171.4
C353 500V 0.01
C351 250V 10
D353 MA2C165001VT
171.9
R368 33 1/2W
D354 MA2C165001VT
D355
D356
Q353 2SC3942000LB
L351 100
R365 820
R369 33 1/2W
11.7
172.5
170.8
R355 47
L354 6.8
170.7
C360 35V 47
C361 0.01
11.3
Q355
B1BCAN000004
0.3
R367 100 1/2W
TO A-BOARD (A21)
LR2
RED
GND
12V
R3357 3.9k
R3356 8.2k
C3353 0.01
220V
D3352 1SS254
LR1
GND
N.C.
(G1)
S-ABL
12V
IK
HEATER
GND
210V
LG5
TO LG-BOARD (LG5)
A
B
C
D
E
1
2
3
4

TNPA2334 (FOR 51INCH MODELS)
TNPA2334AC (FOR 43INCH MODELS)

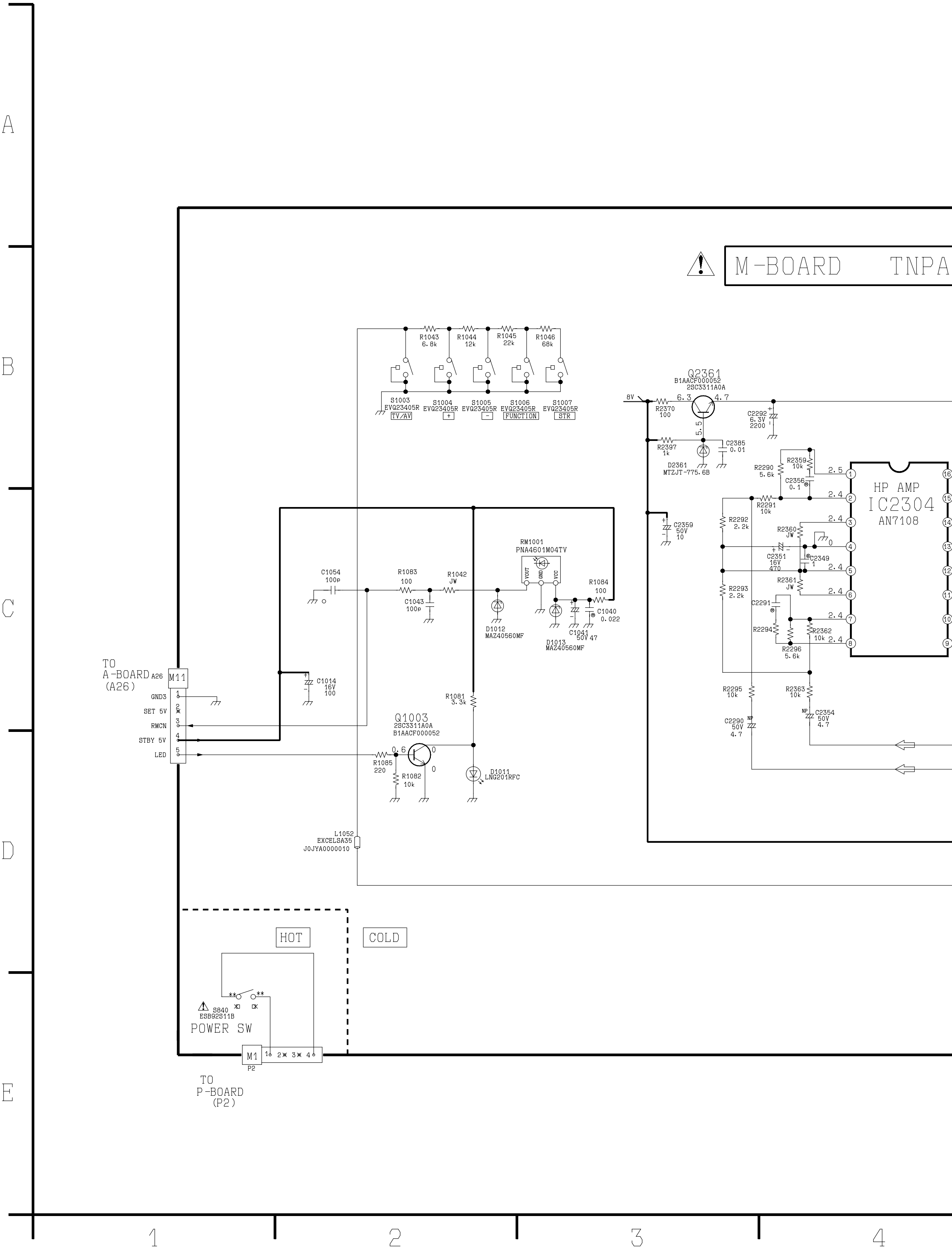

TPLB3
CRT (BLUE)
P16LSG03BMB
G1 G2
H
HG
K
FOCUS
EHT (TO FBT)
R399 56k
L392 15
Q394 B1BAAN000025
R391 100 1/2W
216
158.8
MA2C18800E D390
MA2C18800E D388
C397 0.1
175.5
R398 47k
L393 6.8
R372 330
1/2W
TPLB1
JK391 K3B10CA00006
R396 JW
C396 1000p 2kV
D393 MA2C165001VT
D394 MA2C165001VT
D395
D396
D397 MA2C165001VT
R393 33 1/2W
175.5
D389 MA2C18800E
D387 MA2C18800E
175.0
Q396 B1BCAN000004
8.7
R394 33 1/2W
R390 820
L394 10
169.9
182.7
Q395 B1BCAN000004
0.4
R392 100 1/2W
LB20
TPLB2
TPLB20
1KV
D3371 1SS254
8.5
8.0
Q3371 2SB1030AWA
0.5
C3373 0.01
LB5
FOCUS PACK G2
JS5
R3375 3.9k
C3372 100V 22

PA2332 (FOR 51INCH MODELS)
NPA2332AC (FOR 43INCH MODELS)

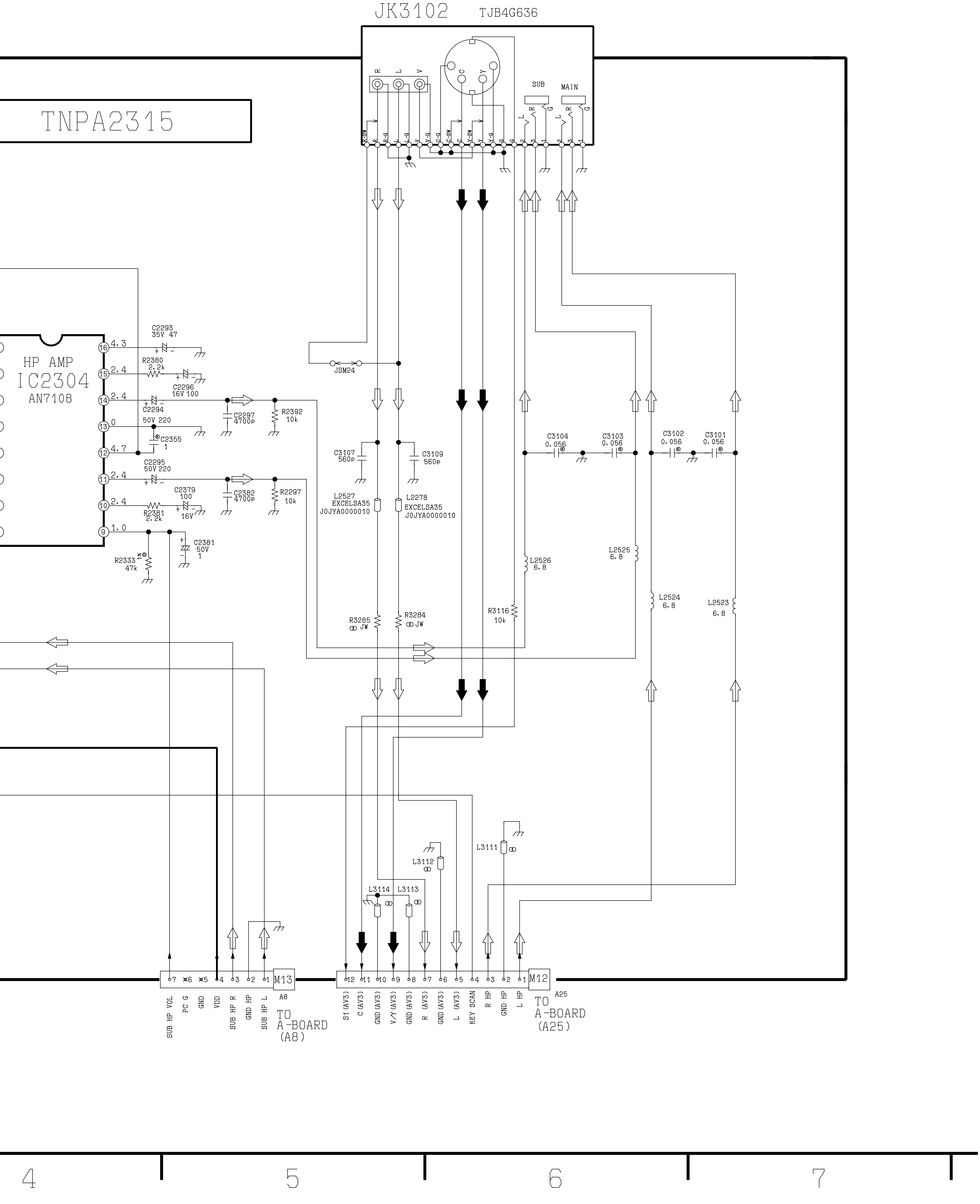

CRT (RED)
P16LSG03RJA
G1 G2
H
HG
K
(TO FBT)
FOCUS (TO FBT)
EHT
Q354 B1BAAN000025
R366 1/2W 100
216
171.4
171.9
D360 MA2C18800E
D361 MA2C18800E
C357 0.1
R358 47k
L353 4.7
R362 330
1/2W
TPLR1
JK351 K3B10CA00006
C356 1000p 2kV
R368 33 1/2W
D356
D357 MA2C165001VT
D355
172.5
168.8
D362 MA2C18800E
D363 MA2C18800E
R369 33 1/2W
170.8
Q356 B1BCAN000004
9.0
170.7
Q355 B1BCAN000004
0.3
R367 100 1/2W
LR20
1kV
JS1
TPLR2
D3351 1SS254
8.5
8.0
Q3351 2SB1030AWA
1.4
C3353 0.01
R3355 3.9k
C3352 100V 22
LR5
FOCUS PACK G2
R356 JW

5 6 7

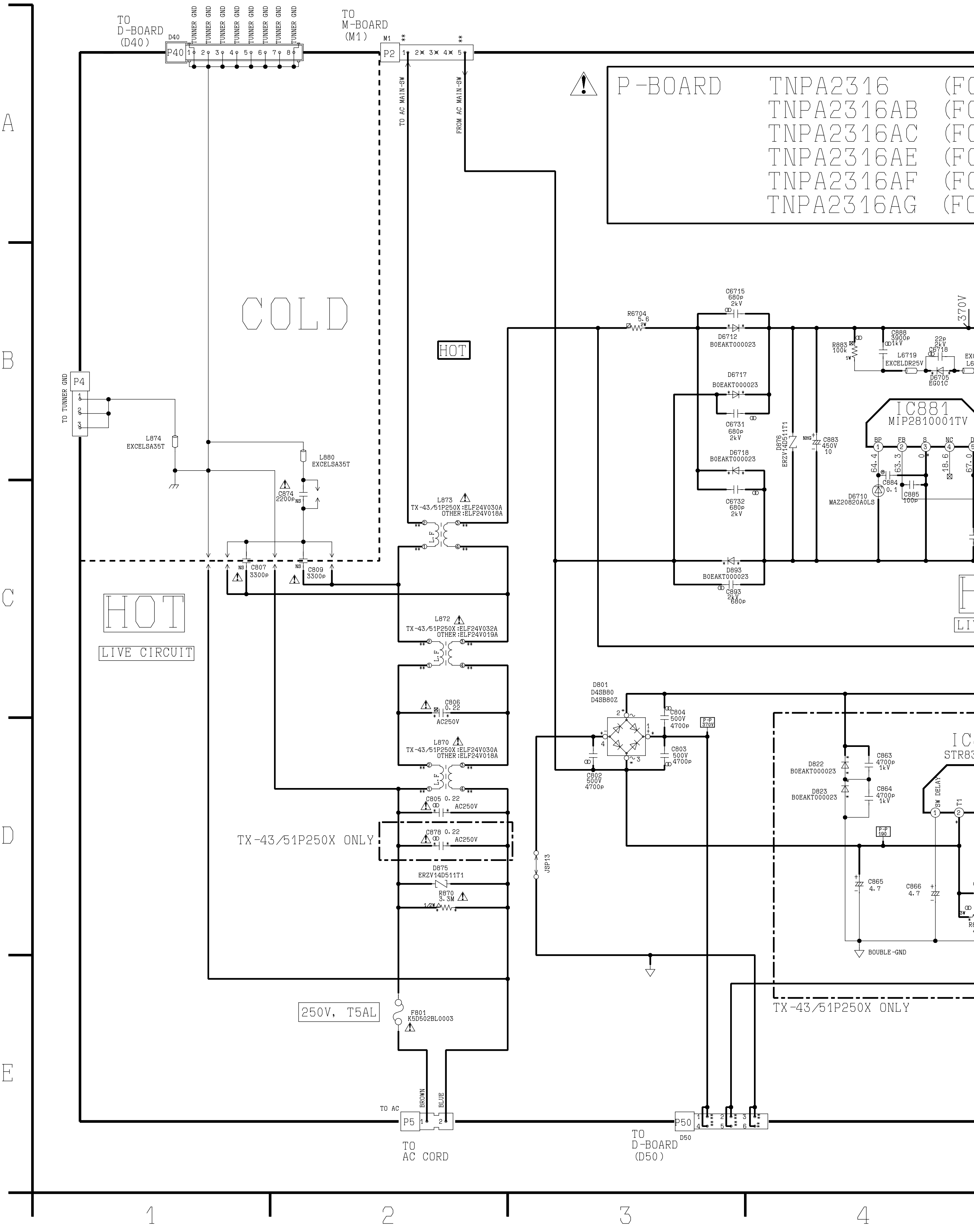
14.13. M-Board Schematic Diagram



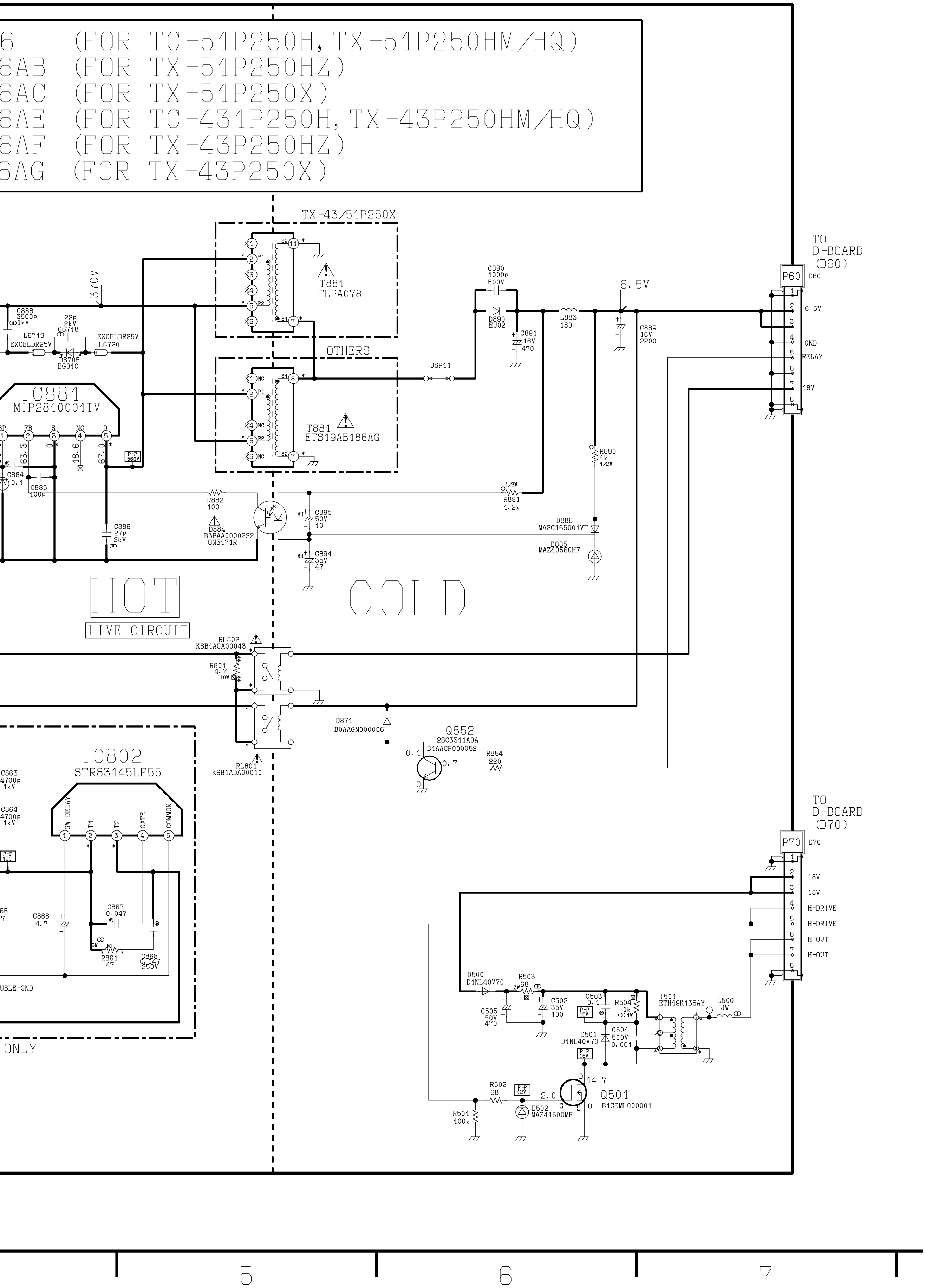
A
B
C
D
E
1
2
3
4
M-BOARD TNPA
R1043 6.8k
R1044 12k
R1045 22k
R1046 68k
S1003 EVQ23405R TV/AV
S1004 EVQ23405R +
S1005 EVQ23405R −
S1006 EVQ23405R FUNCTION
S1007 EVQ23405R STR
Q2361 B1AACF000052 2SC3311A0A
8V
R2370 100
6.3
4.7
5.5
C2292 6.3V 2200
R2397 1k
D2361 MTZJT-775.6B
C2385 0.01
C2359 50V 10
R2290 5.6k
R2359 10k
C2356 0.1
R2291 10k
R2292 2.2k
R2360 JW
C2351 16V 470
C2349 1
R2361 JW
R2293 2.2k
C2291
R2294
R2296 5.6k
R2362 10k
R2295 10k
R2363 10k
C2290 NP 50V 4.7
C2354 NP 50V 4.7
2.5
2.4
0
HP AMP
IC2304
AN7108
RM1001 PNA4601M04TV
VOUT
GND
VCC
C1054 100p
R1083 100
R1042 JW
C1043 100p
D1012 MAZ40560MF
R1084 100
C1040 0.022
C1041 50V 47
D1013 MAZ40560MF
C1014 16V 100
R1081 3.3k
Q1003 2SC3311A0A B1AACF000052
0.6
R1085 220
R1082 10k
D1011 LNG201RFC
L1052 EXCELSA35 J0JYA0000010
TO A-BOARD (A26)
A26
M11
GND3
SET 5V
RMCN
STBY 5V
LED
HOT
COLD
S840 ESB92S11B
POWER SW
M1
P2
TO P-BOARD (P2)


JK3102
TJB4G636
R
L
V
C
Y
SUB
MAIN
L
R
G
L
R
G
R-SW
R
R-G
L
L-G
V
V-G
C-G
C-SW
C
Y-SW
Y
Y-G
G
G
2
3
1
2
3
1
TNPA2315
HP AMP
IC2304
AN7108
16
15
14
13
12
11
10
9
4.3
2.4
2.4
0
4.7
2.4
2.4
1.0
C2293
35V 47
R2380
2.2k
C2296
16V 100
C2294
50V 220
C2355
1
C2297
4700p
R2392
10k
C2295
50V 220
C2379
100
16V
R2381
2.2k
C2382
4700p
R2297
10k
C2381
50V
1
R2333
1%
47k
JSM24
C3107
560p
C3109
560p
L2527
EXCELSA35
J0JYA0000010
L2278
EXCELSA35
J0JYA0000010
R3285
JW
R3284
JW
R3116
10k
C3104
0.056
C3103
0.056
C3102
0.056
C3101
0.056
L2526
6.8
L2525
6.8
L2524
6.8
L2523
6.8
L3111
L3112
L3114
L3113
7
6
5
4
3
2
1
M13
A8
SUB HP VOL
PC G
GND
VDD
SUB HP R
GND HP
SUB HP L
TO
A-BOARD
(A8)
12
11
10
9
8
7
6
5
4
3
2
1
M12
A25
S1 (AV3)
C (AV3)
GND (AV3)
V/Y (AV3)
GND (AV3)
R (AV3)
GND (AV3)
L (AV3)
KEY SCAN
R HP
GND HP
L HP
TO
A-BOARD
(A25)
4
5
6
7

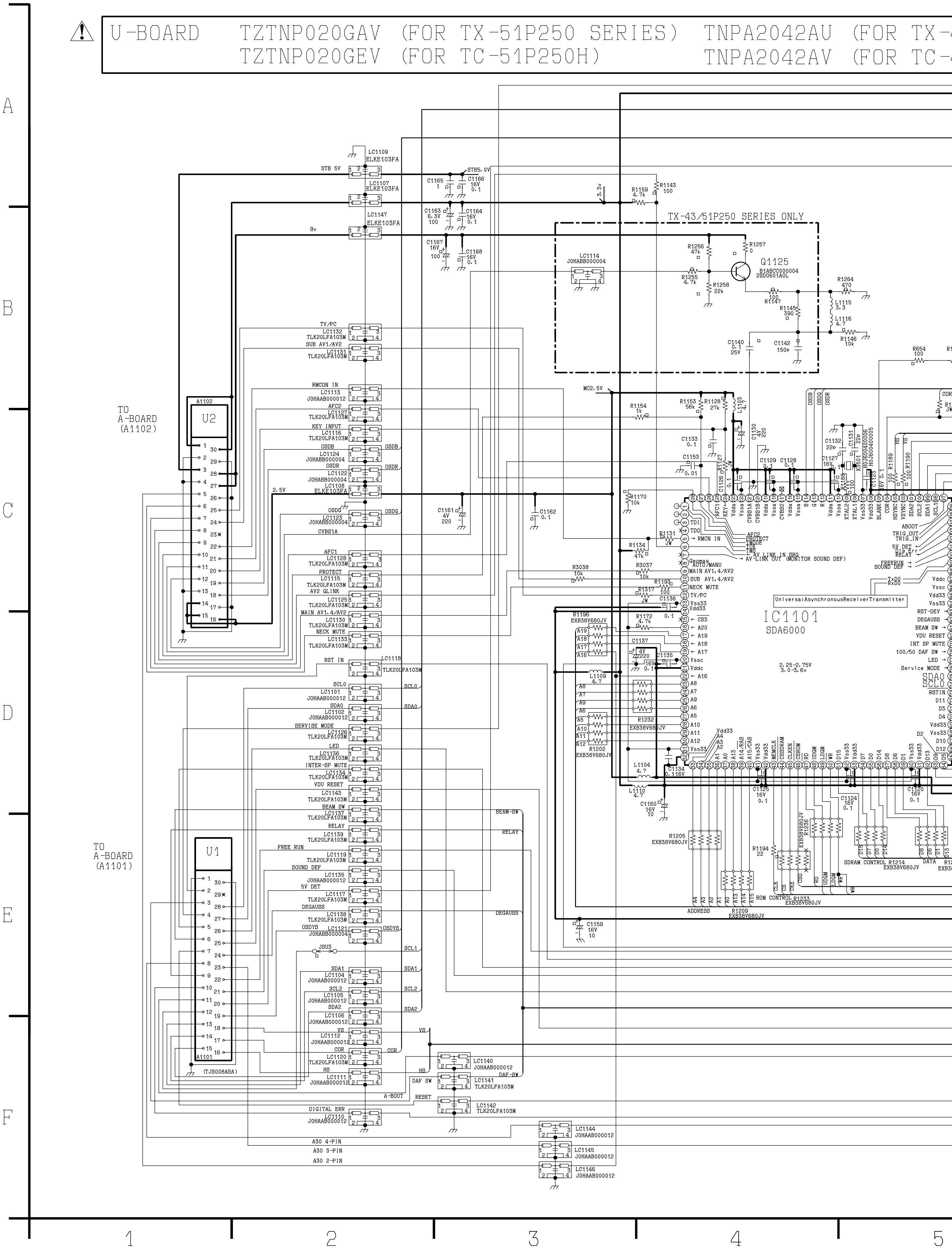
14.14. P-Board Schematic Diagram



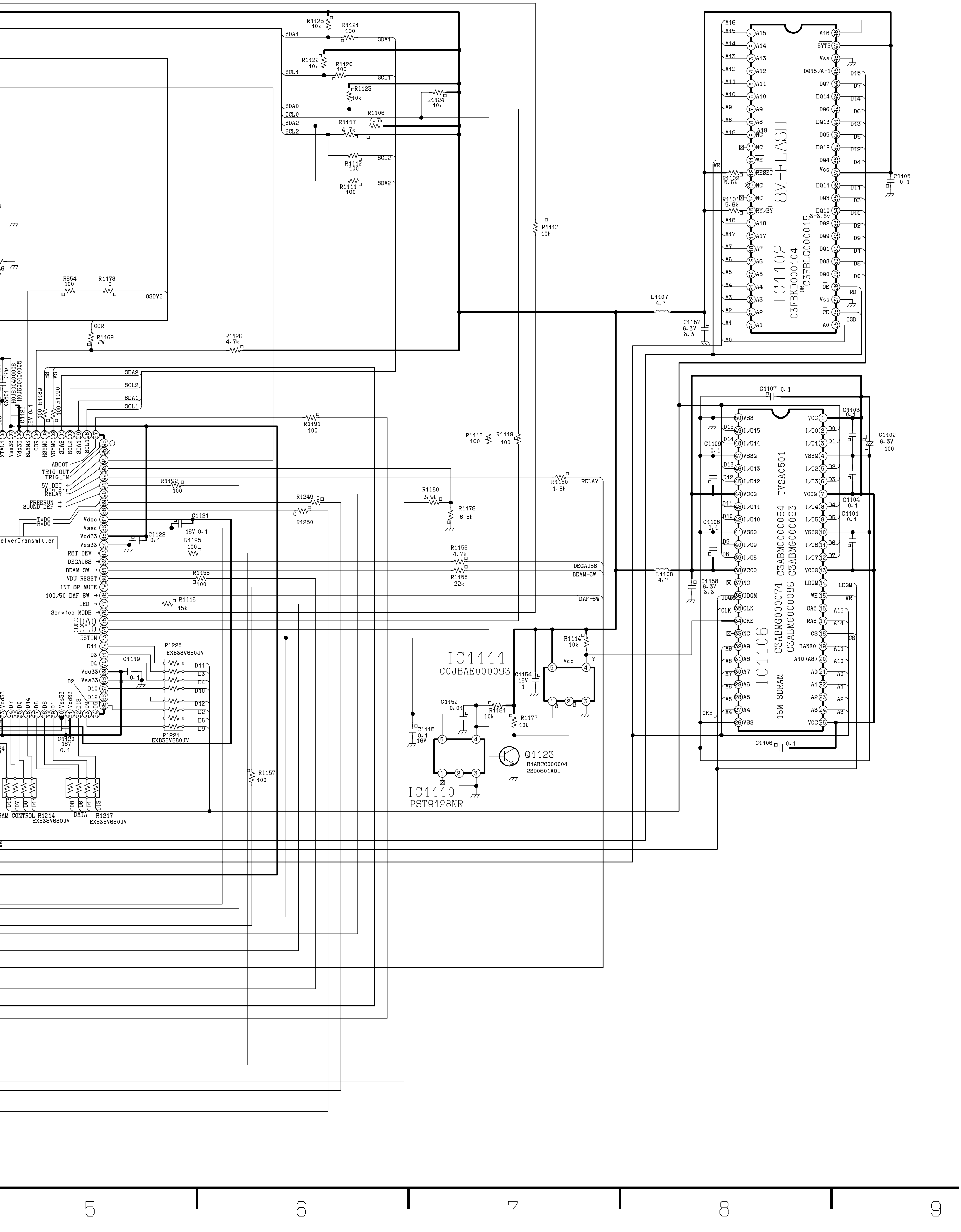
TO
D-BOARD
(D40)
D40
P40
TUNNER GND
TO
M-BOARD
(M1)
M1
P2
TO AC MAIN-SW
FROM AC MAIN-SW
P-BOARD TNPA2316 (FO
TNPA2316AB (FO
TNPA2316AC (FO
TNPA2316AE (FO
TNPA2316AF (FO
TNPA2316AG (FO
COLD
HOT
P4
TO TUNNER GND
L874
EXCELSA35T
L880
EXCELSA35T
C874
2200p
NS
C807
3300p
C809
3300p
L873
TX-43/51P250X:ELF24V030A
OTHER:ELF24V018A
HOT
LIVE CIRCUIT
L872
TX-43/51P250X:ELF24V032A
OTHER:ELF24V019A
C806
0.22
AC250V
L870
TX-43/51P250X:ELF24V030A
OTHER:ELF24V018A
C805 0.22
AC250V
C878 0.22
AC250V
TX-43/51P250X ONLY
D875
ERZV14D511T1
R870
3.3M
1/2W
250V, T5AL
F801
K5D502BL0003
TO AC
BROWN
BLUE
P5
TO
AC CORD
R6704
5.6
2W
C6715
680p
2kV
D6712
B0EAKT000023
D6717
B0EAKT000023
C6731
680p
2kV
D6718
B0EAKT000023
C6732
680p
2kV
D893
B0EAKT000023
C893
2kV
680p
D876
ERZV14D511T1
C883
450V
10
R883
100k
1W
C888
3900p
1kV
L6719
EXCELDR25V
22p
2kV
C6718
D6705
EG01C
370V
IC881
MIP2810001TV
BP
FB
S
NC
64.4
63.3
0
18.6
67.0
C884
0.1
C885
100p
D6710
MAZ20820A0LS
D801
D4SB80
D4SB80Z
C804
500V
4700p
P-P
370V
C803
500V
4700p
C802
500V
4700p
JSP13
D822
B0EAKT000023
D823
B0EAKT000023
C863
4700p
1kV
C864
4700p
1kV
P-P
190
C865
4.7
C866
4.7
BOUBLE-GND
SW DELAY
T1
IC
STR83
TX-43/51P250X ONLY
P50
D50
TO
D-BOARD
(D50)
A
B
C
D
E
1
2
3
4


6 (FOR TC-51P250H, TX-51P250HM/HQ)
6AB (FOR TX-51P250HZ)
6AC (FOR TX-51P250X)
6AE (FOR TC-431P250H, TX-43P250HM/HQ)
6AF (FOR TX-43P250HZ)
6AG (FOR TX-43P250X)
TX-43/51P250X
T881
TLPA078
OTHERS
T881
ETS19AB186AG
370V
C888
3900p
1kV
L6719
EXCELDR25V
22p
2kV
C6718
EXCELDR25V
L6720
D6705
EG01C
IC881
MIP2810001TV
FB
S
NC
D
63.3
0
18.6
67.0
P-P
560V
C884
0.1
C885
100p
R882
100
D884
B3PAA0000222
ON3171R
C886
27p
2kV
C890
1000p
500V
D890
EU02
C891
16V
470
L883
180
6.5V
C889
16V
2200
JSP11
R890
1k
1/2W
R891
1.2k
1/2W
C895
50V
10
C894
35V
47
D886
MA2C165001VT
D885
MAZ40560HF
HOT
LIVE CIRCUIT
COLD
TO
D-BOARD
(D60)
P60
D60
6.5V
GND
RELAY
18V
RL802
K6B1AGA00043
R801
4.7
10W
D871
B0AAGM000006
Q852
2SC3311A0A
B1AACF000052
0.1
0.7
0
R854
220
RL801
K6B1ADA00010
IC802
STR83145LF55
SW DELAY
T1
T2
GATE
COMMON
C863
4700p
1kV
C864
4700p
1kV
P-P
190
C866
4.7
C867
0.047
R861
47
3W
C868
0.047
250V
UBLE-GND
ONLY
TO
D-BOARD
(D70)
P70
D70
18V
18V
H-DRIVE
H-DRIVE
H-OUT
H-OUT
D500
D1NL40V70
R503
68
3W
C505
50V
470
C502
35V
100
C503
0.1
P-P
15V
R504
1k
1W
T501
ETH19K135AY
L500
JW
C504
500V
0.001
D501
D1NL40V70
P-P
15V
R502
68
P-P
12V
2.0
14.7
D
G
S
0
Q501
B1CEML000001
D502
MAZ41500MF
R501
100k
5
6
7

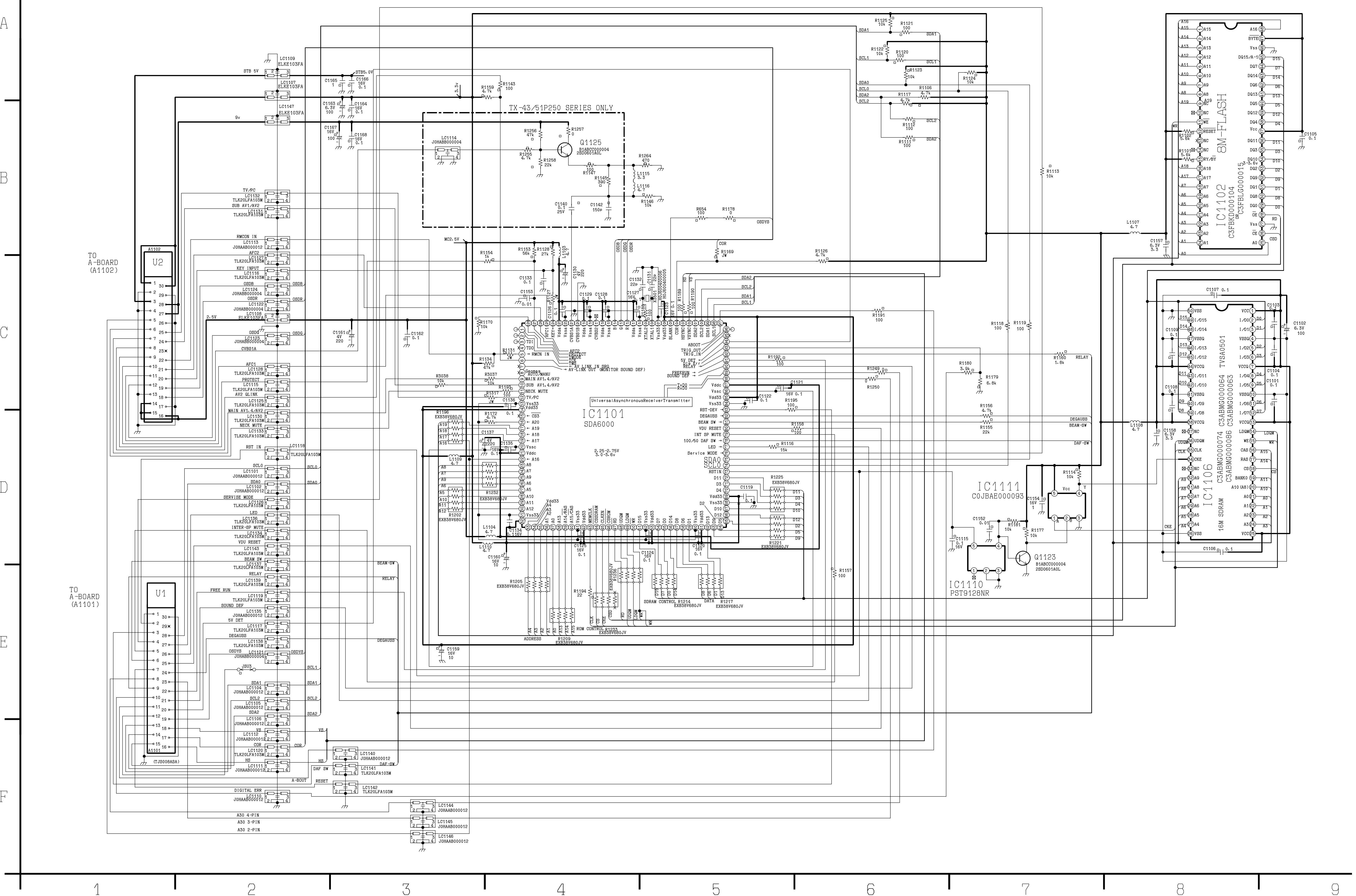
14.15. U-Board Schematic Diagram


U-BOARD TZTNP020GAV (FOR TX-51P250 SERIES) TNPA2042AU (FOR TX-
TZTNP020GEV (FOR TC-51P250H) TNPA2042AV (FOR TC-
TX-43/51P250 SERIES ONLY
TO A-BOARD (A1102)
U2
A1102
TO A-BOARD (A1101)
U1
A1101
(TJS008ASA)
IC1101
SDA6000
Q1125
B1ABCC000004
2SD0601A0L
LC1114
J0HABB000004
STB 5V
STB5.0V
9V
3.3V
2.5V
MC2.5V
TV/PC
SUB AV1/AV2
RMCON IN
AFC2
KEY INPUT
OSDB
OSDR
OSDG
CVBS1A
AFC1
PROTECT
AV2 GLINK
MAIN AV1.4/AV2
NECK MUTE
RST IN
SCL0
SDA0
SERVISE MODE
LED
INTER-SP MUTE
VDU RESET
BEAM SW
RELAY
FREE RUN
SOUND DEF
5V DET
DEGAUSS
OSDYS
SDA1
SCL2
SDA2
VS
COR
HS
DAF SW
A-BOUT
RESET
DIGITAL ERR
A30 4-PIN
A30 3-PIN
A30 2-PIN
UniversalAsynchronousReceiverTransmitter
ADDRESS
ROM CONTROL
SDRAM CONTROL
DATA
A
B
C
D
E
F
1
2
3
4
5

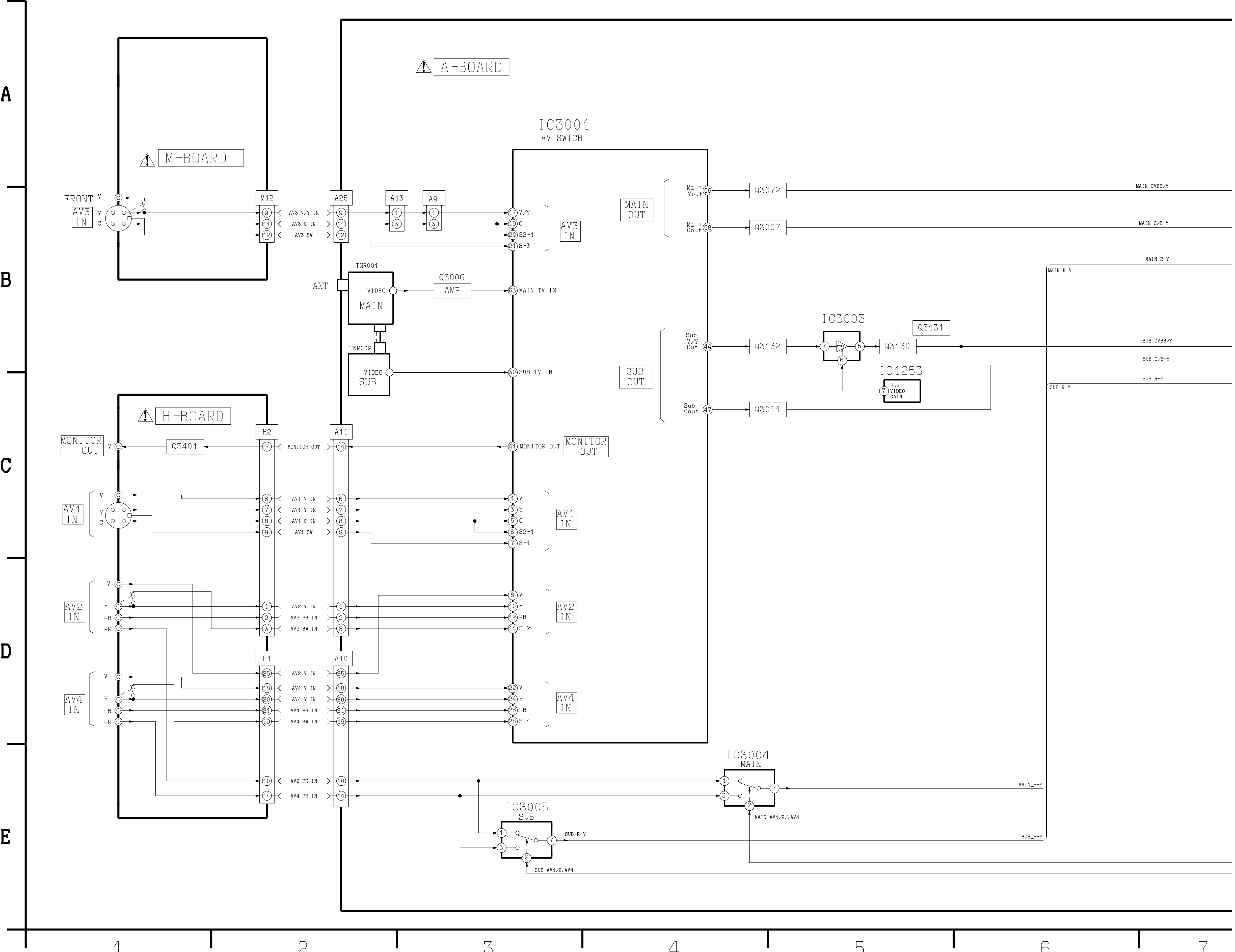
(FOR TX-43P250 SERIES)
(FOR TC-43P250H)

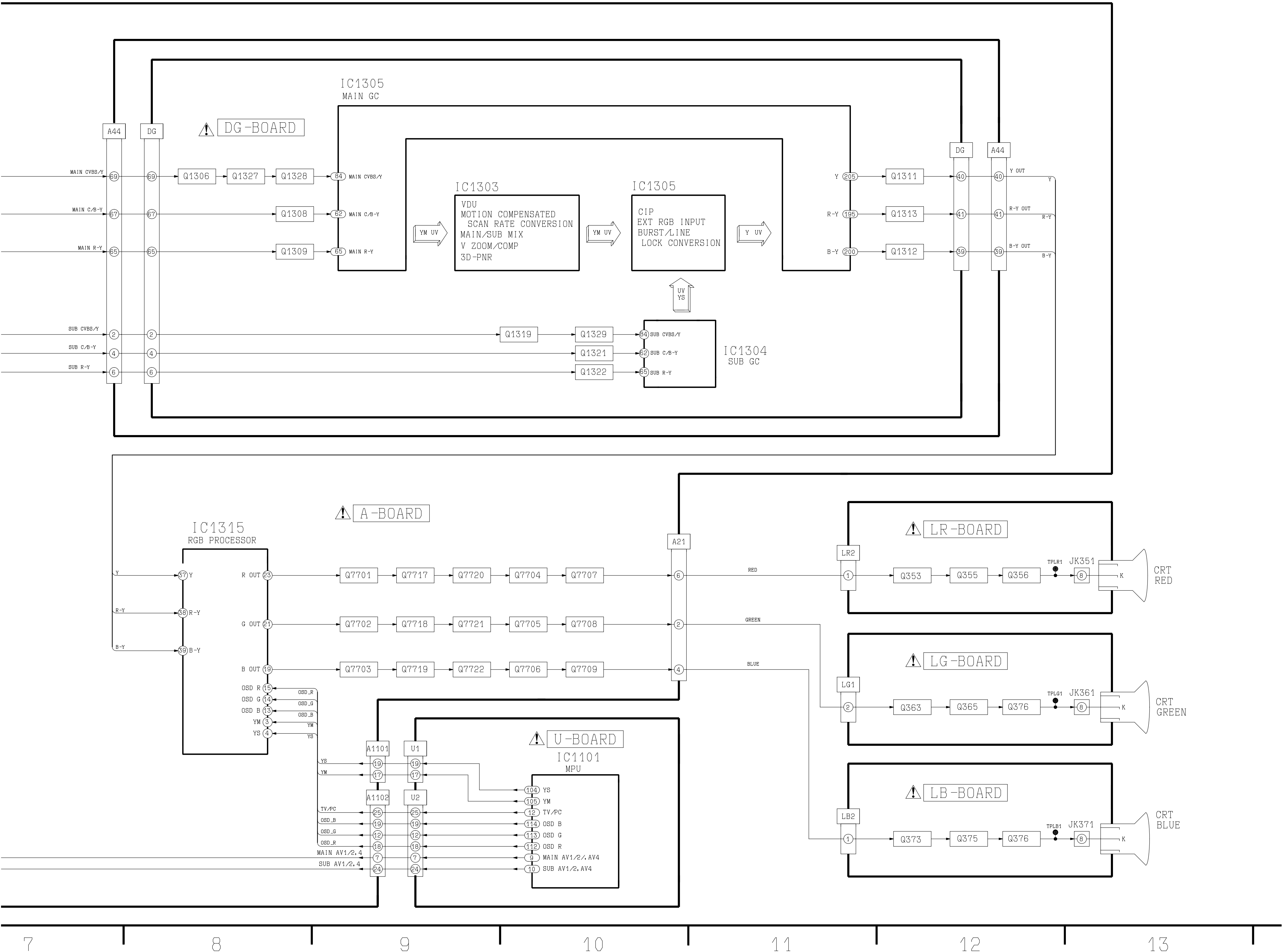

IC1102
8M-FLASH
C3FBKD000104
OR C3FBLG000015
IC1106
16M SDRAM
C3ABMG000074 C3ABMG000086
C3ABMG000064 C3ABMG000063
TVSA0501
IC1111
C0JBAE000093
IC1110
PST9128NR
Q1123
B1ABCC000004
2SD0601A0L
L1107 4.7
L1108 4.7
C1105 0.1
C1157 6.3V 3.3
C1158 6.3V 3.3
C1107 0.1
C1103 0.1
C1102 6.3V 100
C1109 0.1
C1108 0.1
C1104 0.1
C1101 0.1
C1106 0.1
C1154 16V 1
C1152 0.01
C1115 0.1 16V
C1119
C1120 16V 0.1
C1121
C1122 0.1
R1125 10k
R1121 100
R1122 10k
R1120 100
R1123 10k
R1124 10k
R1106 4.7k
R1117 4.7k
R1112 100
R1111 100
R1113 10k
R1126 4.7k
R1169 JW
R654 100
R1178 0
R1191 100
R1118 100
R1119 100
R1160 1.8k
R1180 3.9k
R1179 6.8k
R1192 100
R1249
R1250
R1195 100
R1156 4.7k
R1155 22k
R1158 100
R1116 15k
R1114 10k
R1181 10k
R1177 10k
R1157 100
R1102 5.6k
R1101 5.6k
R1225 EXB38V680JV
R1221 EXB38V680JV
R1214 EXB38V680JV
R1217 EXB38V680JV
SDA0
SCL0
SDA1
SCL1
SDA2
SCL2
OSDYS
COR
RELAY
DEGAUSS
BEAM-SW
DAF-SW
ABOOT
TRIG_OUT
TRIG_IN
5V DET
RELAY
FREERUN
SOUND DEF
TxD0
RxD0
Vddc
Vssc
Vdd33
Vss33
RST-DEV
DEGAUSS
BEAM SW
VDU RESET
INT SP MUTE
100/50 DAF SW
LED
Service MODE
RSTIN
X3501
22p
H0J800400006
H0J800400005
ReceiverTransmitter
DRAM CONTROL
DATA
WR
RD
CSD
CS
CKE
CLK
UDQM
LDQM
5
6
7
8
9

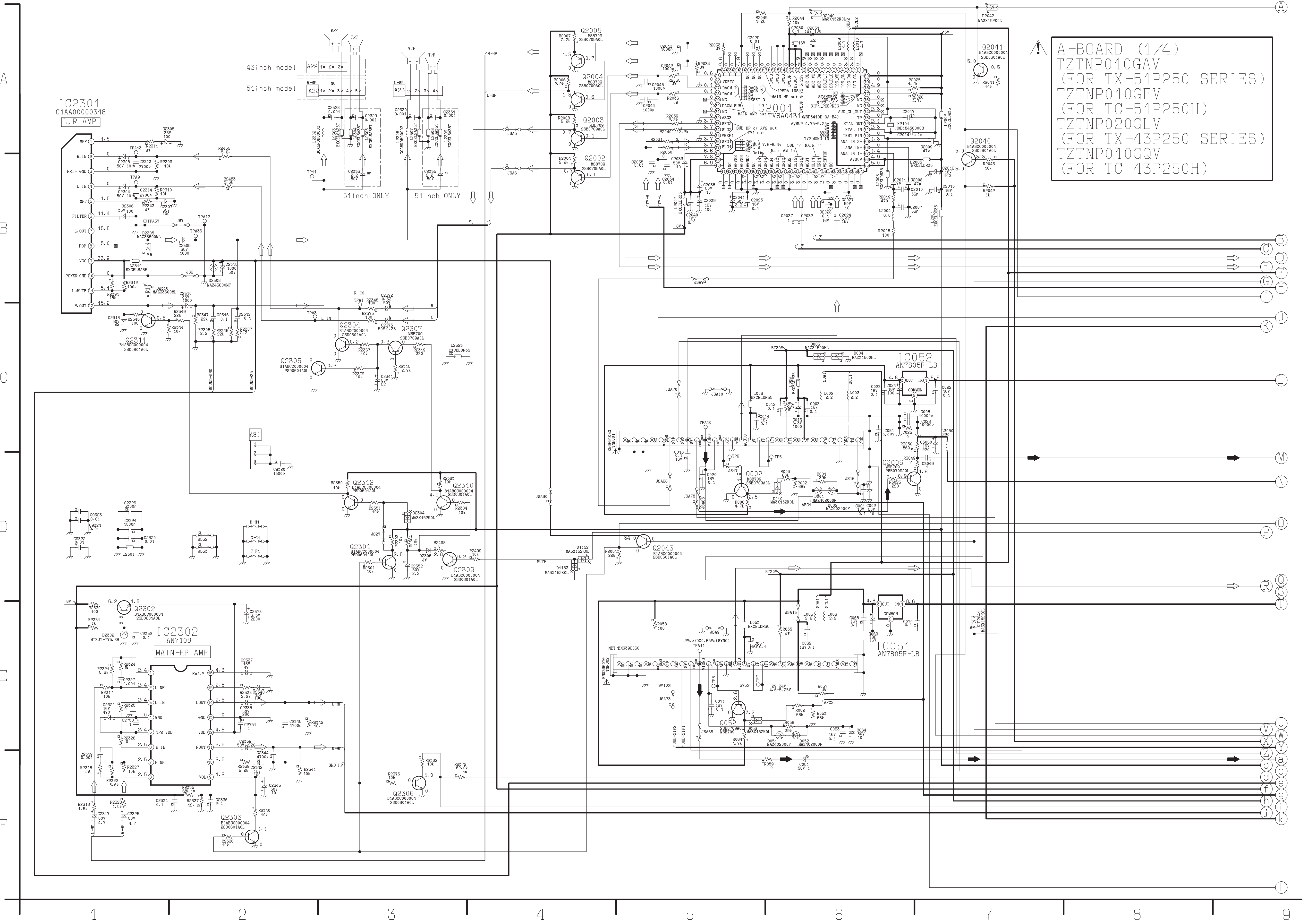
⚠ U-BOARD TZTNP020GAV (FOR TX-51P250 SERIES) TNPA2042AU (FOR TX-43P250 SERIES)
TZTNP020GEV (FOR TC-51P250H) TNPA2042AV (FOR TC-43P250H)



TO A-BOARD (A1102)
U2
TO A-BOARD (A1101)
U1
(TJS008ASA)
TX-43/51P250 SERIES ONLY
Q1125
B1ABCC000004
2SD0601A0L
IC1101
SDA6000
UniversalAsynchronousReceiverTransmitter
IC1102
8M-FLASH
C3FBKD000104
C3FBLG000015
IC1106
16M SDRAM
C3ABMG000074
C3ABMG000086
C3ABMG000064
C3ABMG000063
TVSA0501
IC1111
C0JBAE000093
IC1110
PST9128NR
Q1123
B1ABCC000004
2SD0601A0L
STB 5V
9v
MC2.5V
ADDRESS
ROM CONTROL
SDRAM CONTROL
DATA
A30 4-PIN
A30 3-PIN
A30 2-PIN
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9


A
B
C
D
E
1
2
3
4
5
6
7
A-BOARD
M-BOARD
H-BOARD
FRONT
AV3 IN
V
Y
C
M12
A25
A13
A9
AV3 V/Y IN
AV3 C IN
AV3 SW
IC3001
AV SWICH
V/Y
C
S2-1
S-3
AV3 IN
MAIN OUT
Main Yout
Main Cout
Q3072
Q3007
MAIN CVBS/Y
MAIN C/B-Y
MAIN R-Y
MAIN_R-Y
ANT
TNR001
VIDEO
MAIN
Q3006
AMP
MAIN TV IN
TNR002
VIDEO
SUB
SUB TV IN
SUB OUT
Sub V/Y Out
Sub Cout
Q3132
IC3003
VCA2
Q3130
Q3131
IC1253
Sub VIDEO GAIN
Q3011
SUB CVBS/Y
SUB C/B-Y
SUB R-Y
SUB_R-Y
MONITOR OUT
Q3401
H2
A11
MONITOR OUT
MONITOR OUT
AV1 IN
AV1 V IN
AV1 Y IN
AV1 C IN
AV1 SW
V
Y
C
S2-1
S-1
AV1 IN
AV2 IN
V
Y
PB
PR
AV2 Y IN
AV2 PB IN
AV2 SW IN
V
Y
PB
S-2
AV2 IN
H1
A10
AV2 V IN
AV4 IN
V
Y
PB
PR
AV4 V IN
AV4 Y IN
AV4 PB IN
AV4 SW IN
V
Y
PB
S-4
AV4 IN
AV2 PR IN
AV4 PR IN
IC3004
MAIN
MAIN_R-Y
MAIN AV1/2/.AV4
IC3005
SUB
SUB R-Y
SUB_R-Y
SUB AV1/2.AV4

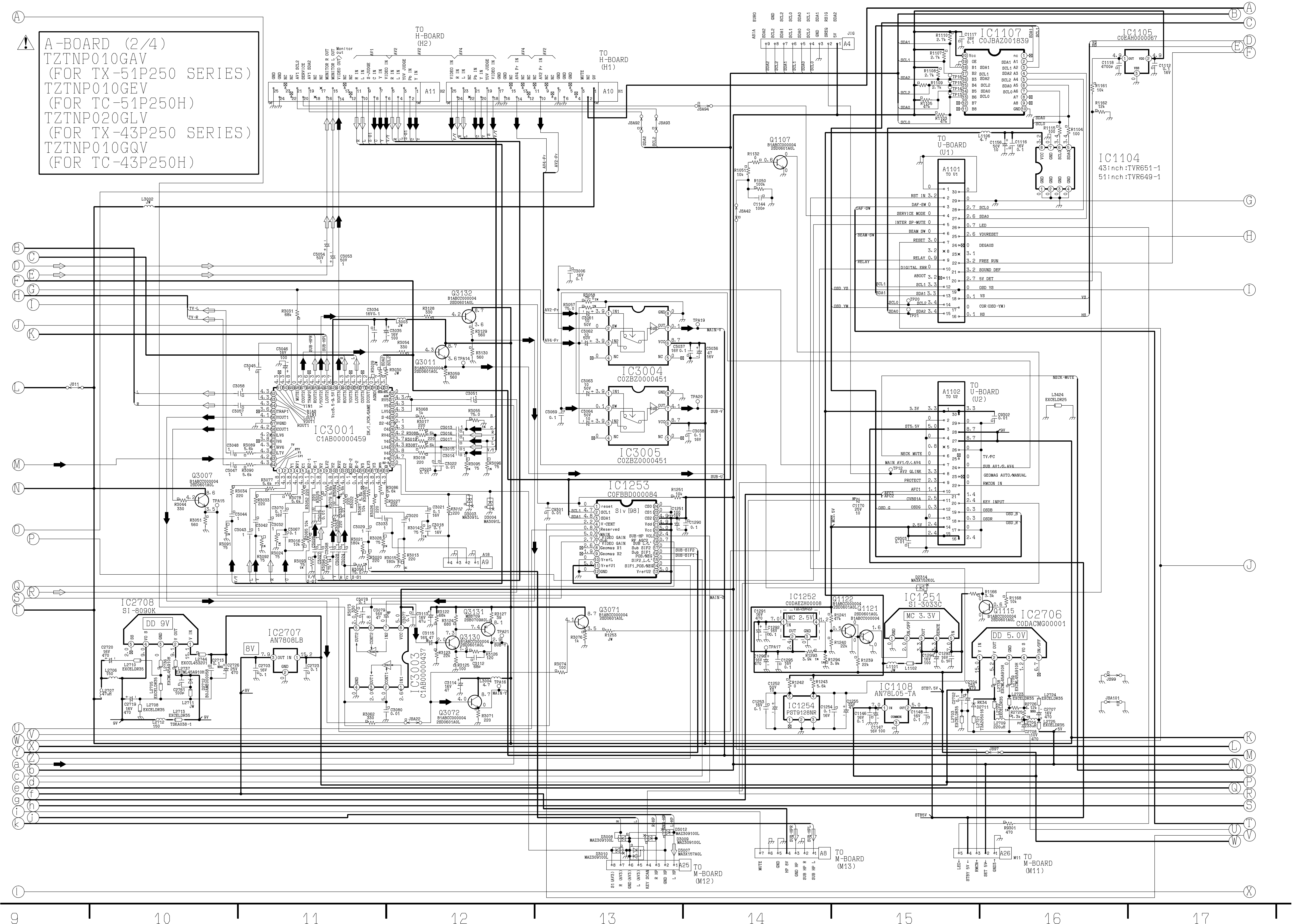

DG-BOARD
A44
DG
IC1305
MAIN GC
MAIN CVBS/Y
MAIN C/B-Y
MAIN R-Y
Q1306
Q1327
Q1328
Q1308
Q1309
IC1303
VDU
MOTION COMPENSATED
SCAN RATE CONVERSION
MAIN/SUB MIX
V ZOOM/COMP
3D-PNR
YM UV
IC1305
CIP
EXT RGB INPUT
BURST/LINE
LOCK CONVERSION
Y UV
UV YS
Y
R-Y
B-Y
Q1311
Q1313
Q1312
Y OUT
R-Y OUT
B-Y OUT
SUB CVBS/Y
SUB C/B-Y
SUB R-Y
Q1319
Q1329
Q1321
Q1322
IC1304
SUB GC
A-BOARD
IC1315
RGB PROCESSOR
R OUT
G OUT
B OUT
OSD R
OSD G
OSD B
YM
YS
Q7701
Q7717
Q7720
Q7704
Q7707
Q7702
Q7718
Q7721
Q7705
Q7708
Q7703
Q7719
Q7722
Q7706
Q7709
A21
RED
GREEN
BLUE
LR-BOARD
LR2
Q353
Q355
Q356
TPLR1
JK351
CRT RED
LG-BOARD
LG1
Q363
Q365
Q376
TPLG1
JK361
CRT GREEN
LB-BOARD
LB2
Q373
Q375
Q376
TPLB1
JK371
CRT BLUE
K
U-BOARD
IC1101
MPU
A1101
U1
A1102
U2
TV/PC
OSD_B
OSD_G
OSD_R
MAIN AV1/2,4
SUB AV1/2,4
MAIN AV1/2/,AV4
SUB AV1/2,AV4
7
8
9
10
11
12
13



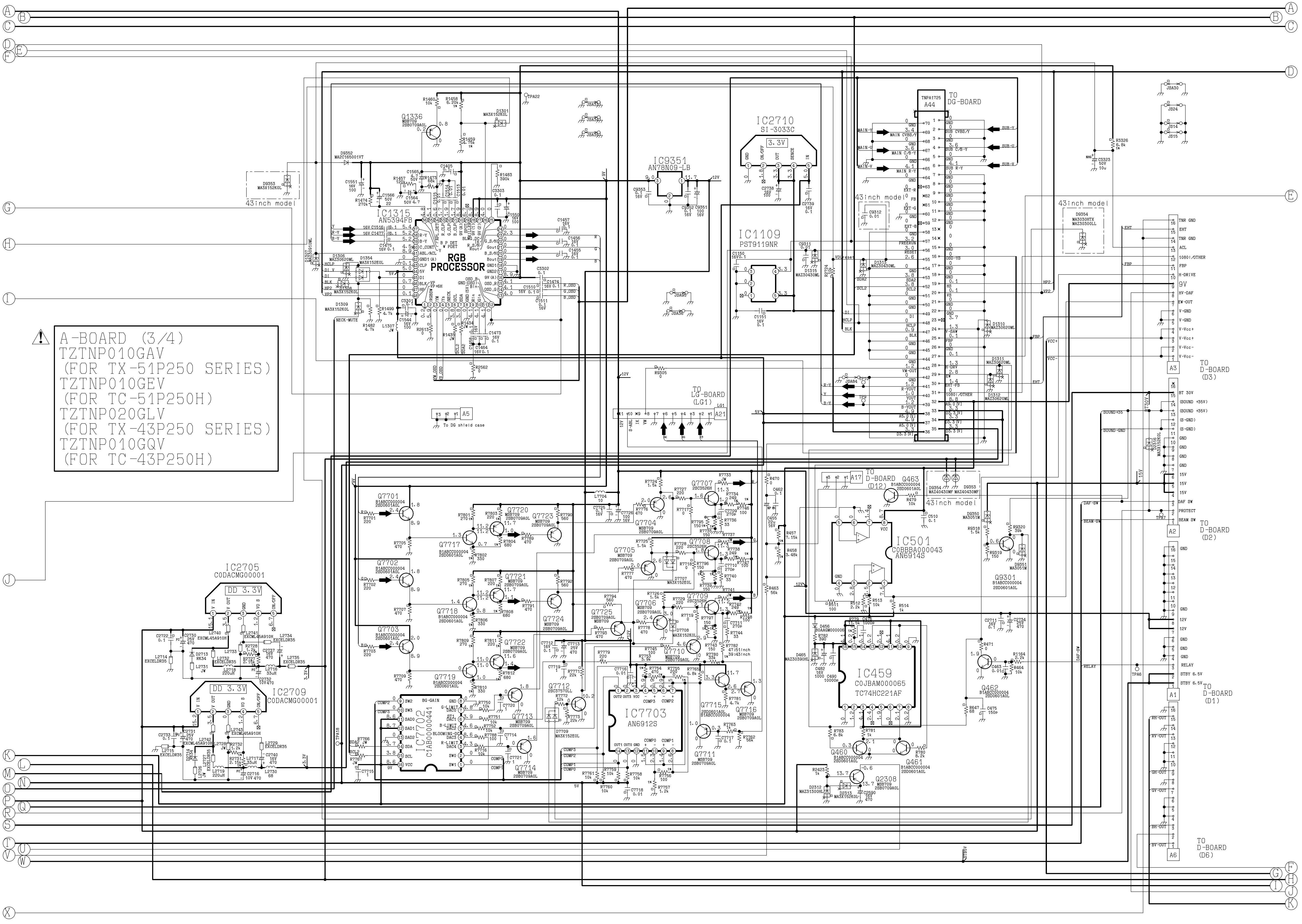
A-BOARD (1/4)
TZTNP010GAV
(FOR TX-51P250 SERIES)
TZTNP010GEV
(FOR TC-51P250H)
TZTNP020GLV
(FOR TX-43P250 SERIES)
TZTNP010GQV
(FOR TC-43P250H)

IC2301
C1AA00000348
L,R AMP
MPF
R.IN
PRI-GND
L.IN
FILTER
L.OUT
POP
VCC
POWER GND
L:MUTE
R.OUT
Q2311
B1ABCC000004
2SD0601A0L
Q2304
Q2305
Q2307
MSB709
2SB0709A0L
Q2312
Q2310
Q2301
Q2309
Q2302
Q2303
Q2306
IC2302
AN7108
MAIN-HP AMP
Ref.V
L NF
L IN
GND
1/2 VDD
R IN
R NF
LOUT
ROUT
VDD
VOL
L-HP
R-HP
GND-HP
MUTE
SOUND-GND
SOUND-35
43inch model
51inch model
51inch ONLY
W/F
T/F
A22
A23
A31
R-SP
L-SP
NC
TP11
TPA13
TPA9
TPA37
TPA12
TPA36
JS7
JS6
R IN
L IN
TPA1
TPA3
Q2005
Q2004
Q2003
Q2002
MSB709
2SB0709A0L
R-HP
L-HP
JSA5
JSA6
JSA7
JSA90
IC2001
TVSA0431
(MSP3410D-QA-B4)
MAIN HP out
SUB HP or AV2 out
TV1 out
SUB In
MAIN In
Main AM In
Dolby In
TV2 MONO In
AVSUP 4.75-5.25V
XTAL OUT
XTAL IN
TEST PIN
ANA IN 2+
ANA IN-
ANA IN 1+
AVSUP
AUD_CL_OUT
TP
STANDBYQ
ADR SEL
D_CTR_I/O_0
D_CTR_I/O_1
I2C CL
I2C DA
RESET Q
X2101
H0D184500008
Q2041
B1ABCC000004
2SD0601A0L
Q2040
D2042
MA3X152K0L
Q2043
D1152
D1153
MA3X152K0L
BT30V
IC052
AN7805F-LB
OUT
IN
COMMON
TNR001
ENG39103G
TPA10
TP6
TP5
Q002
MSB709
2SB0709A0L
D001
D002
MA2402000F
D010
AFC1
JSA70
JSA10
JSA68
JSA78
JS17
JS16
Q3006
MSB709
2SB0709A0L
D003
MA23150HL
D004
IC051
AN7805F-LB
NET:ENG39606G
TNR002
ENG39607G
2Vpp (DC0.65VatSYNC)
TPA11
TP8
TP7
5V5%
9V10%
29-34V
4.6-5.25V
Q052
2SB0709A0L
MSB709
D051
D052
MA2402000F
D053
MA3X152K0L
AFC2
JSA9
JSA13
JSA73
JSA66
SUB-SIF2
SUB-SIF1
D2041
MA3X152K0L
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
a
b
c
d
e
f
g
h
i
j
k
l
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F

A-BOARD (2/4)
TZTNP010GAV
(FOR TX-51P250 SERIES)
TZTNP010GEV
(FOR TC-51P250H)
TZTNP020GLV
(FOR TX-43P250 SERIES)
TZTNP010GQV
(FOR TC-43P250H)



TO H-BOARD (H2)
A11
TO H-BOARD (H1)
A10
IC3001 C1AB00000459
IC3004 C0ZBZ0000451
IC3005 C0ZBZ0000451
IC1253 C0FBBD000084
IC3003 C1AB00000437
IC2708 SI-8090K
DD 9V
IC2707 AN7808LB
8V
IC1107 C0JBAZ001839
IC1105 C0EAH0000067
IC1104 43inch:TVR651-1 51inch:TVR649-1
TO U-BOARD (U1)
A1101
TO U-BOARD (U2)
A1102
IC1252 C0DAEZH00008
MC 2.5V
IC1251 SI-3033C
MC 3.3V
IC2706 C0DACMG00001
DD 5.0V
IC1254 PST9128NR
IC1108 AN78L05-TA
Q1107
Q3132
Q3011
Q3007
Q3131
Q3130
Q3072
Q3071
Q1122
Q1121
Q1115
J1G
A4
A9
A8 TO M-BOARD (M13)
A25 TO M-BOARD (M12)
A26 TO M-BOARD (M11)
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
9
10
11
12
13
14
15
16
17

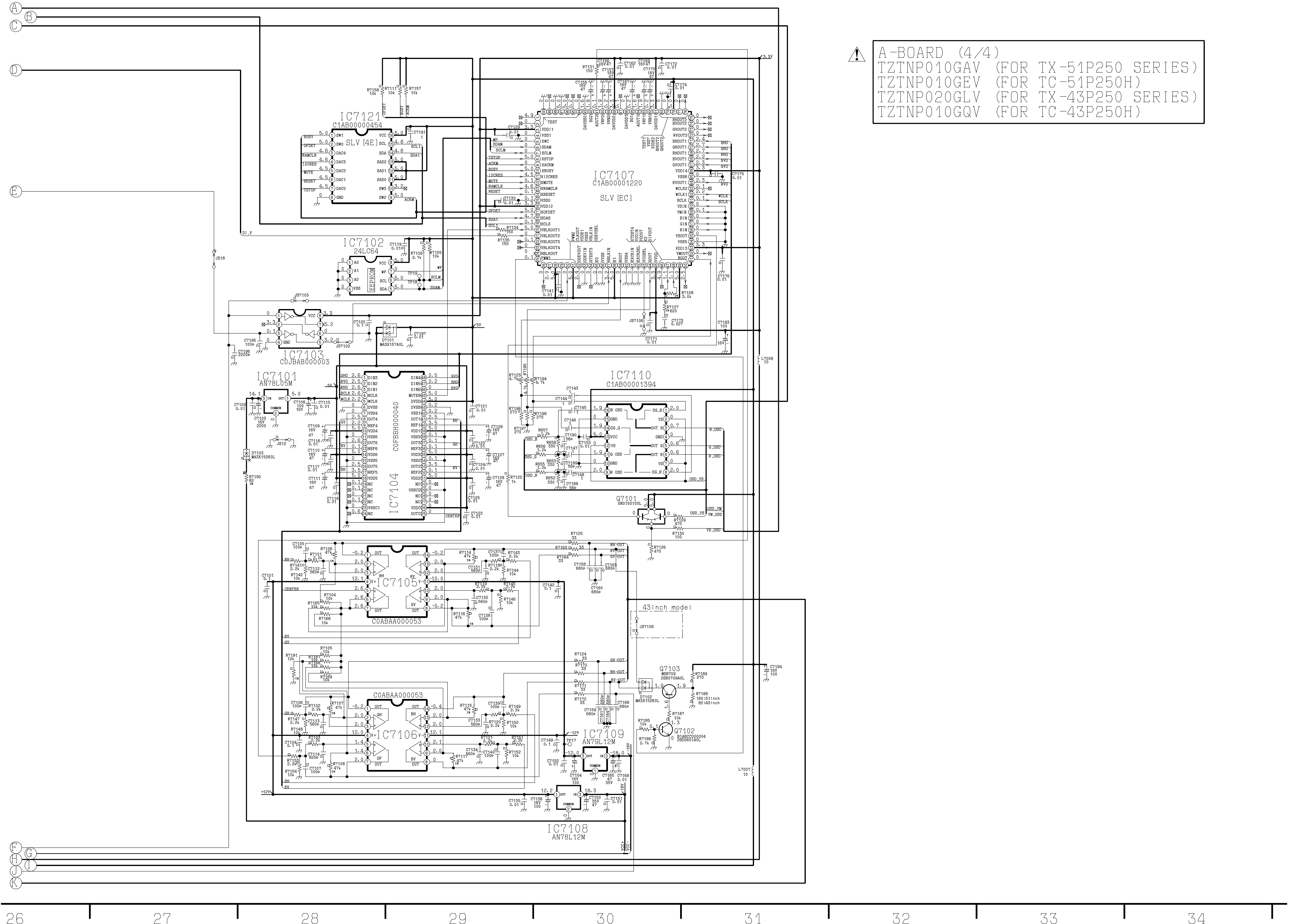


A-BOARD (3/4)
TZTNP010GAV
(FOR TX-51P250 SERIES)
TZTNP010GEV
(FOR TC-51P250H)
TZTNP020GLV
(FOR TX-43P250 SERIES)
TZTNP010GQV
(FOR TC-43P250H)

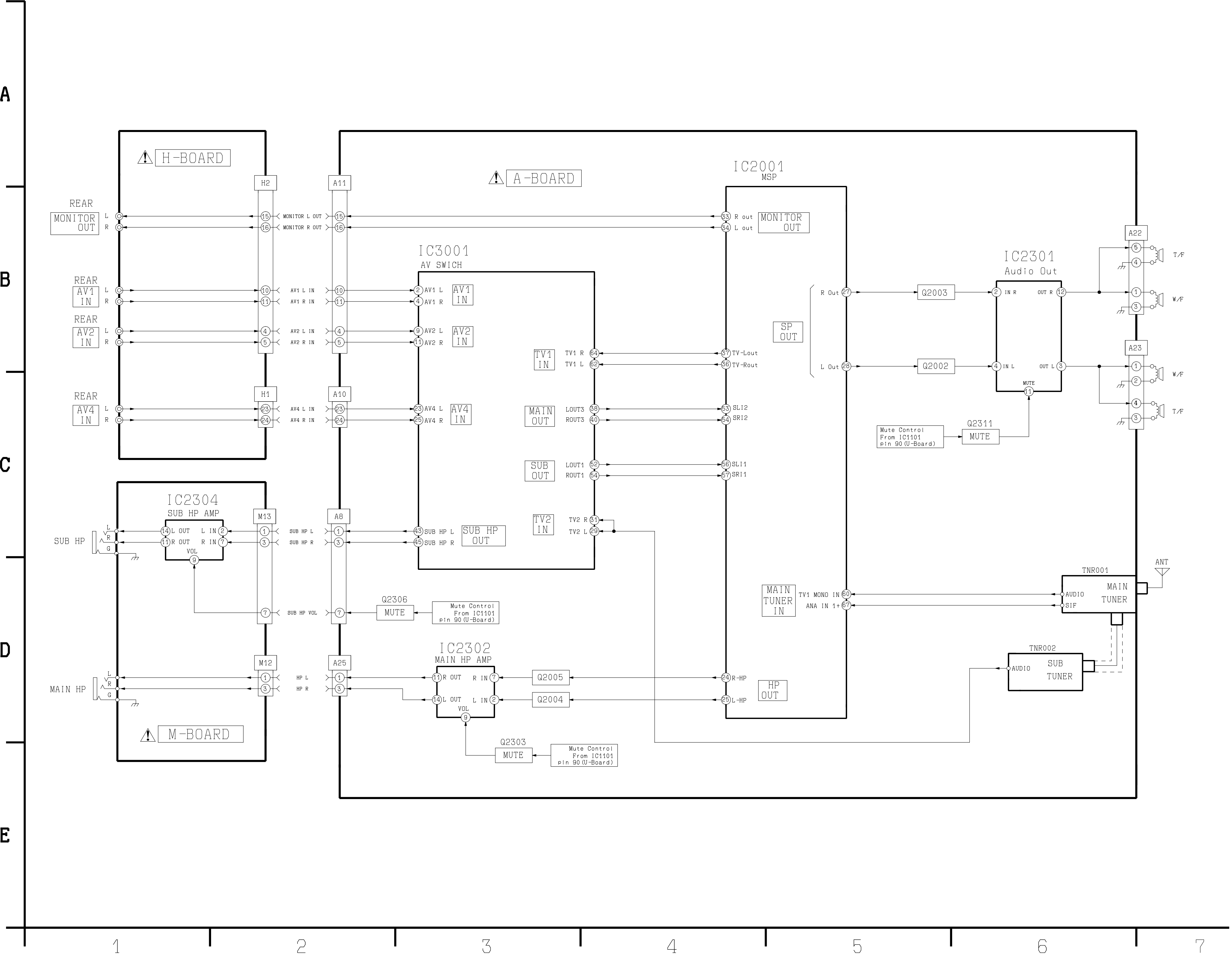
IC1315
AN5594FB
RGB PROCESSOR
Q1336
IC9351
AN78N09-LB
IC2710
SI-3033C
3.3V
IC1109
PST9119NR
TO DG-BOARD
A44
TO LG-BOARD (LG1)
A21
A5
To DG shield case
43inch model
TO D-BOARD (D12)
A17
IC501
C0BBBA000043
AN6914S
IC459
C0JBAM000065
TC74HC221AF
IC7703
AN6912S
IC7702
C1AB00000441
IC2705
C0DACMG00001
IC2709
C0DACMG00001
DD 3.3V
TO D-BOARD (D3)
A3
TO D-BOARD (D2)
A2
TO D-BOARD (D1)
A1
TO D-BOARD (D6)
A6
Q7701
Q7702
Q7703
Q7704
Q7705
Q7706
Q7707
Q7708
Q7709
Q7710
Q7711
Q7712
Q7713
Q7714
Q7715
Q7716
Q7717
Q7718
Q7719
Q7720
Q7721
Q7722
Q7723
Q7724
Q7725
Q460
Q461
Q462
Q463
Q9301
Q2308
A B C D E F G H I J K L M N O P Q R S T U V W X
A B C D E F G H I J K

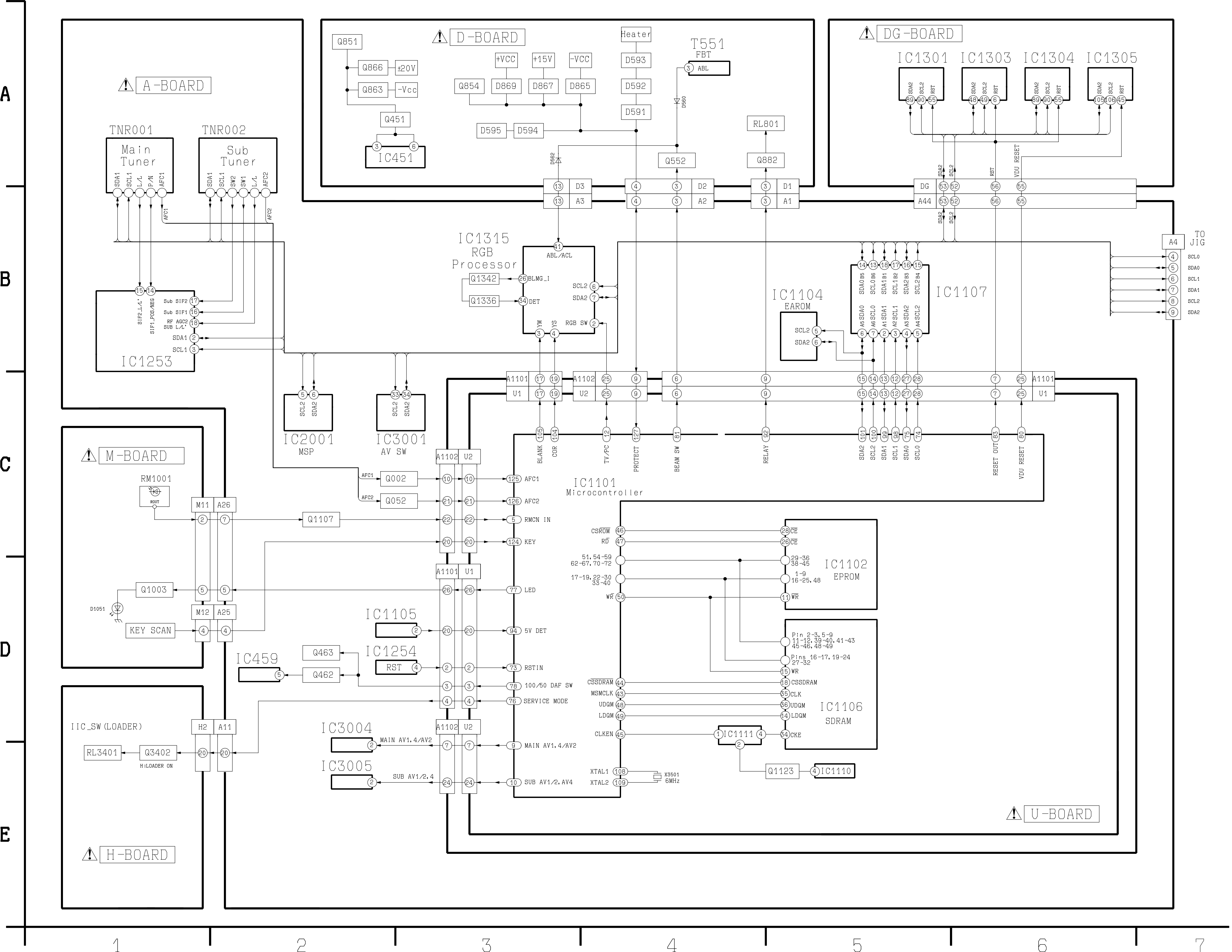
18 19 20 21 22 23 24 25 26

⚠ A-BOARD (4/4)
TZTNP010GAV (FOR TX-51P250 SERIES)
TZTNP010GEV (FOR TC-51P250H)
TZTNP020GLV (FOR TX-43P250 SERIES)
TZTNP010GQV (FOR TC-43P250H)



A
B
C
D
E
F
G
H
I
J
K
IC7121
C1AB00000454
SLV [4E]
IC7107
C1AB00001220
SLV [EC]
IC7102
24LC64
EEPROM
IC7103
C0JBAB000003
IC7101
AN78L05M
IC7104
C0FBBH000040
IC7110
C1AB00001394
Q7101
XN0150100L
IC7105
C0ABAA000053
IC7106
C0ABAA000053
IC7109
AN79L12M
IC7108
AN78L12M
Q7103
MSB709
2SB0709A0L
Q7102
B1ABCC000004
2SD0601A0L
D7101
MA3X157A0L
D7102
MA3X152E0L
D7103
MA3X152K0L
43inch model
JS7108
R7188
180:51inch
82:43inch
3.3V
5V
+12V
-12V
18V
26
27
28
29
30
31
32
33
34


A
B
C
D
E
1
2
3
4
5
6
7
H-BOARD
A-BOARD
M-BOARD
H2
A11
H1
A10
M13
A8
M12
A25
A22
A23
REAR MONITOR OUT
REAR AV1 IN
REAR AV2 IN
REAR AV4 IN
L
R
MONITOR L OUT
MONITOR R OUT
AV1 L IN
AV1 R IN
AV2 L IN
AV2 R IN
AV4 L IN
AV4 R IN
SUB HP L
SUB HP R
SUB HP VOL
HP L
HP R
IC2001
MSP
R out
L out
MONITOR OUT
IC3001
AV SWICH
AV1 L
AV1 R
AV1 IN
AV2 L
AV2 R
AV2 IN
AV4 L
AV4 R
AV4 IN
SUB HP L
SUB HP R
SUB HP OUT
TV1 IN
TV1 R
TV1 L
MAIN OUT
LOUT3
ROUT3
SUB OUT
LOUT1
ROUT1
TV2 IN
TV2 R
TV2 L
TV-Lout
TV-Rout
SLI2
SRI2
SLI1
SRI1
SP OUT
R Out
L Out
MAIN TUNER IN
TV1 MONO IN
ANA IN 1+
R-HP
L-HP
HP OUT
Q2003
Q2002
IC2301
Audio Out
IN R
OUT R
IN L
OUT L
MUTE
T/F
W/F
W/F
T/F
Q2311
MUTE
Mute Control From IC1101 pin 90 (U-Board)
TNR001
AUDIO
SIF
MAIN TUNER
ANT
TNR002
AUDIO
SUB TUNER
IC2304
SUB HP AMP
L OUT
R OUT
L IN
R IN
VOL
SUB HP
G
Q2306
MUTE
Mute Control From IC1101 pin 90 (U-Board)
IC2302
MAIN HP AMP
R OUT
L OUT
R IN
L IN
VOL
Q2005
Q2004
Q2303
MUTE
Mute Control From IC1101 pin 90 (U-Board)
MAIN HP


A-BOARD
D-BOARD
DG-BOARD
M-BOARD
H-BOARD
U-BOARD
TNR001
Main Tuner
TNR002
Sub Tuner
SDA1
SCL1
L/L'
P/N
AFC1
SW2
SW1
AFC2
IC1253
SIF2_L/L'
SIF1_POS/NEG
Sub SIF2
Sub SIF1
RF AGC2
SUB L/L'
IC1315
RGB Processor
ABL/ACL
BLMG_I
DET
SCL2
SDA2
RGB SW
YM
YS
Q1342
Q1336
IC2001
MSP
IC3001
AV SW
Q851
Q866
±20V
Q863
-Vcc
Q451
IC451
Q854
+VCC
D869
+15V
D867
-VCC
D865
D595
D594
Heater
D593
D592
D591
T551
FBT
ABL
D560
D562
Q552
RL801
Q882
D3
A3
D2
A2
D1
A1
IC1301
IC1303
IC1304
IC1305
RST
DG
A44
VDU RESET
A4
TO JIG
SCL0
SDA0
SCL1
SDA1
IC1104
EAROM
IC1107
A1101
U1
A1102
U2
BLANK
COR
TV/PC
PROTECT
BEAM SW
RELAY
RESET OUT
IC1101
Microcontroller
AFC1
AFC2
Q002
Q052
RMCN IN
KEY
LED
5V DET
RSTIN
100/50 DAF SW
SERVICE MODE
MAIN AV1.4/AV2
SUB AV1/2.4
SUB AV1/2,AV4
RM1001
RDUT
M11
A26
Q1107
Q1003
D1051
M12
A25
KEY SCAN
IC1105
IC1254
RST
IC459
Q463
Q462
IIC_SW(LOADER)
RL3401
Q3402
H:LOADER ON
H2
A11
IC3004
IC3005
CSROM
RD
51,54-59 62-67,70-72
17-19,22-30 33-40
WR
CE
29-36 38-45
1-9 16-25,48
IC1102
EPROM
Pin 2-3,5-9 11-12,39-40,41-43 45-46,48-49
Pins 16-17,19-24 27-32
CSSDRAM
MSMCLK
UDQM
LDQM
CLKEN
CLK
CKE
IC1111
IC1106
SDRAM
XTAL1
XTAL2
X3501 6MHz
Q1123
IC1110
A
B
C
D
E
1
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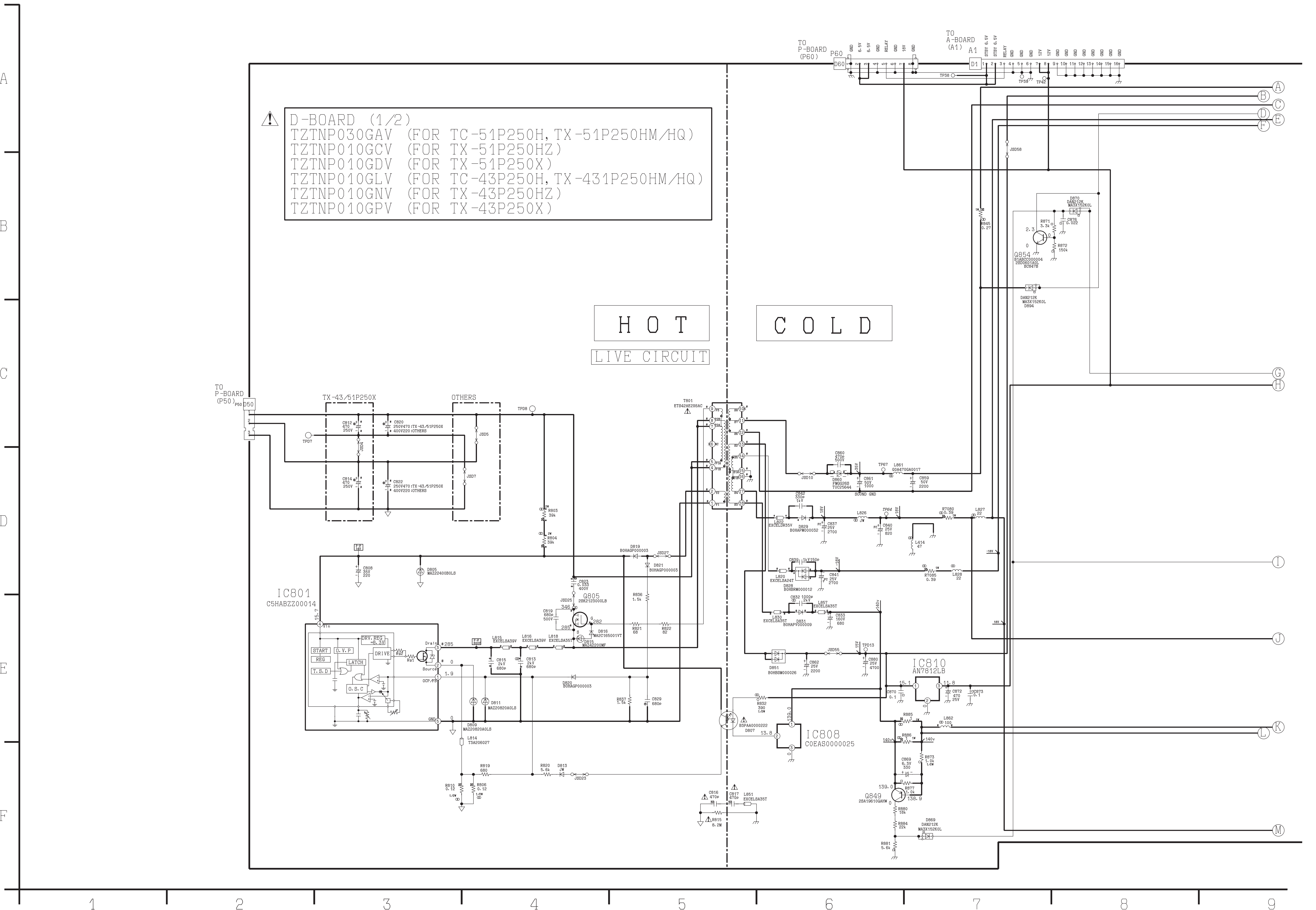
7



⚠ D-BOARD (1/2)
TZTNP030GAV (FOR TC-51P250H,TX-51P250HM/HQ)
TZTNP010GCV (FOR TX-51P250HZ)
TZTNP010GDV (FOR TX-51P250X)
TZTNP010GLV (FOR TC-43P250H,TX-431P250HM/HQ)
TZTNP010GNV (FOR TX-43P250HZ)
TZTNP010GPV (FOR TX-43P250X)

HOT
LIVE CIRCUIT
COLD
TO P-BOARD (P60)
P60
D60
GND
6.5V
RELAY
15V
TO A-BOARD (A1)
A1
D1
STBY 6.5V
12V
TP38
TP39
TP42
JSD58
R845 0.27
D870 DAN212K MA3X152K0L
R871 3.3k
C876 0.022
Q854 B1ABCC000004 2SD0601A0L BC847B
R872 150k
DAN212K MA3X152K0L D894
TO P-BOARD (P50)
P50
D50
TX-43/51P250X
OTHERS
TPD7
TPD8
C812 470 250V
C820 250V470:TX-43/51P250X 400V220:OTHERS
JSD4
JSD5
JSD7
C814 470 250V
C822 250V470:TX-43/51P250X 400V220:OTHERS
R803 39k
R804 39k
C808 35V 220
D805 MAZ2240OB0LS
IC801
C5HABZZ00014
15.7
Vin
DRV.REG
START
O.V.P
REG
LATCH
DRIVE
T.S.D
O.S.C
R91
Drain
Source
OCP/FB
GND
C823 0.033 400V
JSD25
Q805 2SK2123000LB
C819 680p 500V
346
285
282
D816 MA2C165001VT
D815 MAZ4220OMF
D819 B0HAGP000003
JSD27
D821 B0HAGP000003
R836 1.5k
R821 68
R822 82
L815 EXCELSA39V
L816 EXCELSA39V
L818 EXCELSA35T
C815 2kV 680p
C813 2kV 680p
1.9
0
D820 B0HAGP000003
R837 1.5k
C829 680p
D811 MAZ20820A0LS
D809 MAZ20820A0LS
L814 T3A206027
R819 680
R820 5.6k
D813 JW
JSD23
R810 0.12
R806 0.12
T801 ETS42AE2X6AC
C860 470p 500V
D860 FMG26S TUC25644
TP67
L861 G0A470GA0017
JSD10
C861 50V 1000
C859 50V 2200
SOUND GND
C842 330p 1kV
L822 EXCELDR35V
D829 B0HAPM000032
C837 25V 2700
L826 JW
TP64
C840 25V 820
R7080 0.39
L827 22
L414 47
C839 1kV150p
L820 EXCELSA24T
D828 B0HBRM000012
C841 25V 2700
R7085 0.39
L828 22
C832 1000p 2kV
L857 EXCELSA35T
L830 EXCELSA35T
D831 B0HAPV000009
C833 160V 680
140V
JSD55
TPD13
C880 25V 4700
D851 B0HBSM000026
C862 25V 2200
IC810
AN7812LB
15.1
11.8
C870 0.1
C872 470 25V
C873 0.1
R832 390 1/2W
D807 B3PAA0000222
13.8
139.0
IC808
C0EAS0000025
R885
L862 100
R886
140V
R873 1.0k
C869 6.3V 330
139.0
R877 1.0k
138.9
Q849 2SA1961OGAHW
R880 18k
R884 22k
D869 DAN212K MA3X152K0L
R881 5.6k
C816 470p
C817 470p
L851 EXCELSA35T
R815 8.2M
A
B
C
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K
L
M
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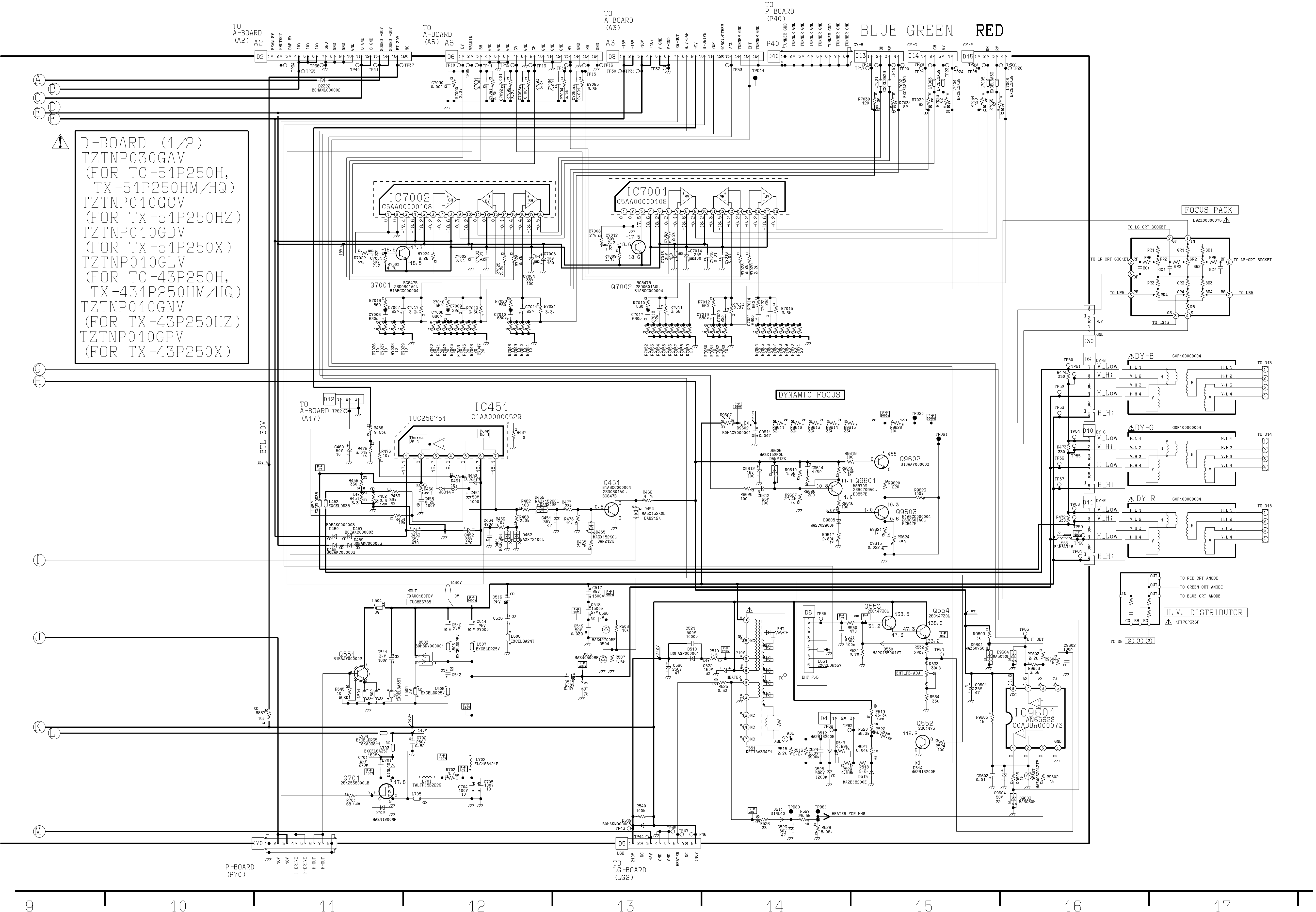
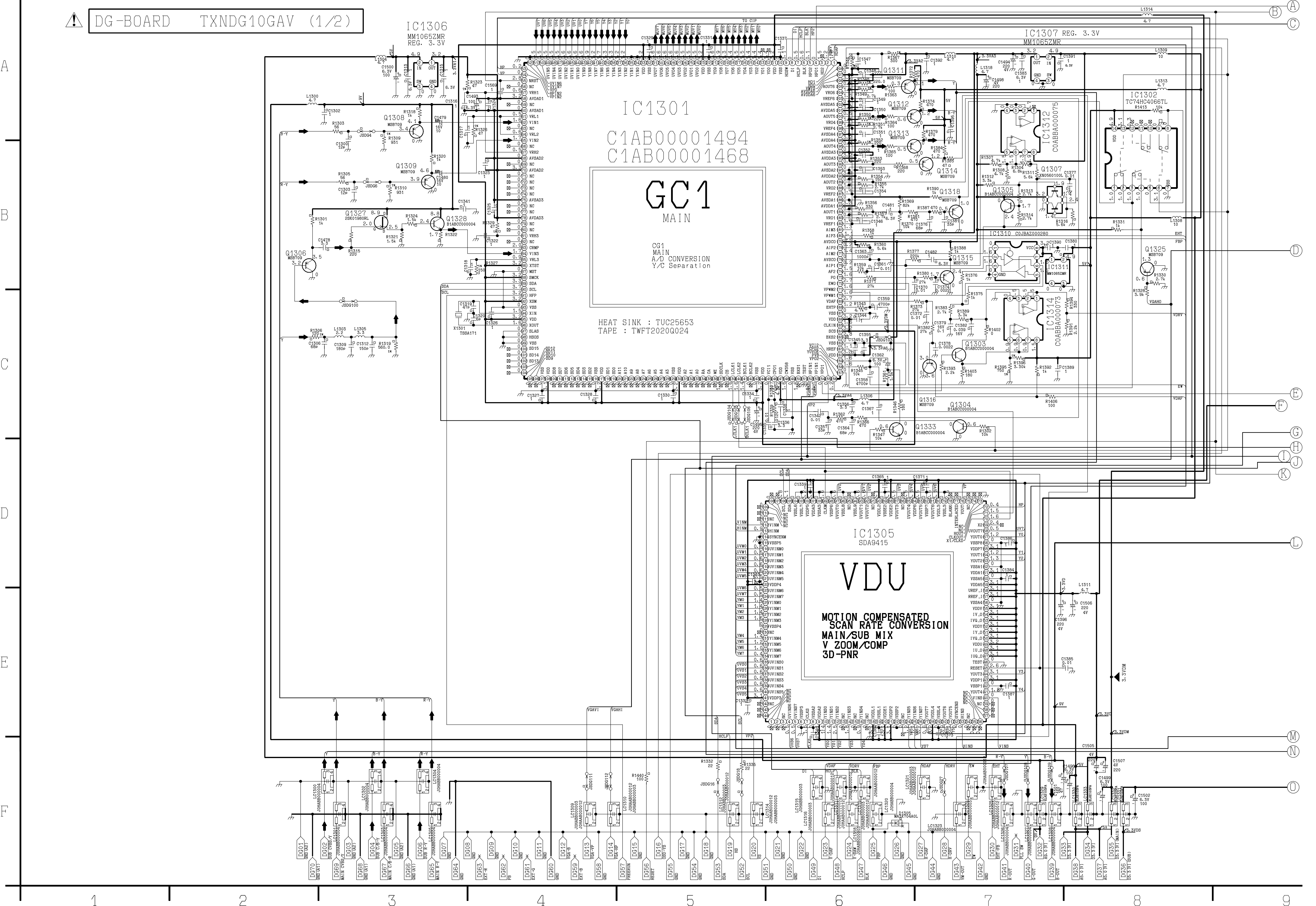

D-BOARD (1/2)
TZTNP030GAV
(FOR TC-51P250H,
TX-51P250HM/HQ)
TZTNP010GCV
(FOR TX-51P250HZ)
TZTNP010GDV
(FOR TX-51P250X)
TZTNP010GLV
(FOR TC-43P250H,
TX-431P250HM/HQ)
TZTNP010GNV
(FOR TX-43P250HZ)
TZTNP010GPV
(FOR TX-43P250X)
TO A-BOARD (A2) A2
TO A-BOARD (A6) A6
TO A-BOARD (A3) A3
TO P-BOARD (P40) P40
BLUE
GREEN
RED
IC7002
C5AA00000108
IC7001
C5AA00000108
Q7001 BC847B 2SD0601A0L B1ABCC000004
Q7002 BC847B 2SD0601A0L B1ABCC000004
FOCUS PACK
D9ZZ00000075
TO LG-CRT SOCKET
TO LR-CRT SOCKET
TO LB-CRT SOCKET
TO LR5
TO LB5
TO LG13
DY-B
DY-G
DY-R
G0F100000004
TO D13
TO D14
TO D15
TO A-BOARD (A17)
IC451
C1AA00000529
TUC256751
BTL 30V
Q451 B1ABCC000004 2SD0601A0L BC847B
DYNAMIC FOCUS
Q9601 MSB709 2SB0709A0L BC857B
Q9602 B1BAAV000003
Q9603 B1ABCC000004 2SD0601A0L BC847B
TO RED CRT ANODE
TO GREEN CRT ANODE
TO BLUE CRT ANODE
H.V. DISTRIBUTOR
KFT7CP336F
TO D8
HOUT TXAUC160FDV TUC8E6785
Q551 B1BAJV000002
Q553 2SC14730L
Q554 2SC14730L
Q552 2SC1473
T551 KFT7AA334F1
EHT F/B
EHT_FB_ADJ
IC9601
AN6562S
C0ABBA000073
HEATER FOR HHS
Q701 2SK2538000LB
P-BOARD (P70)
TO LG-BOARD (LG2)
9
10
11
12
13
14
15
16
17

⚠ DG-BOARD TXNDG10GAV (1/2)


IC1306
MM1065ZMR
REG. 3.3V
IC1301
C1AB00001494
C1AB00001468
GC1
MAIN
CG1
MAIN
A/D CONVERSION
Y/C Separation
HEAT SINK : TUC25653
TAPE : TWFT2020Q024
IC1307 REG. 3.3V
MM1065ZMR
IC1302
TC74HC4066TL
IC1312
C0ABBA000075
IC1310 C0JBAZ000280
IC1311
MM1065ZMR
IC1314
C0ABBA000073
Q1308
Q1309
Q1327
2SK01980RL
Q1328
B1ABCC000004
Q1306
Q1311
Q1312
Q1313
Q1314
Q1318
Q1305
Q1307
Q1315
Q1303
Q1316
Q1304
Q1333
Q1325
X1301
TSSA171
TO CIP
IC1305
SDA9415
VDU
MOTION COMPENSATED
SCAN RATE CONVERSION
MAIN/SUB MIX
V ZOOM/COMP
3D-PNR
A
B
C
D
E
F
G
H
I
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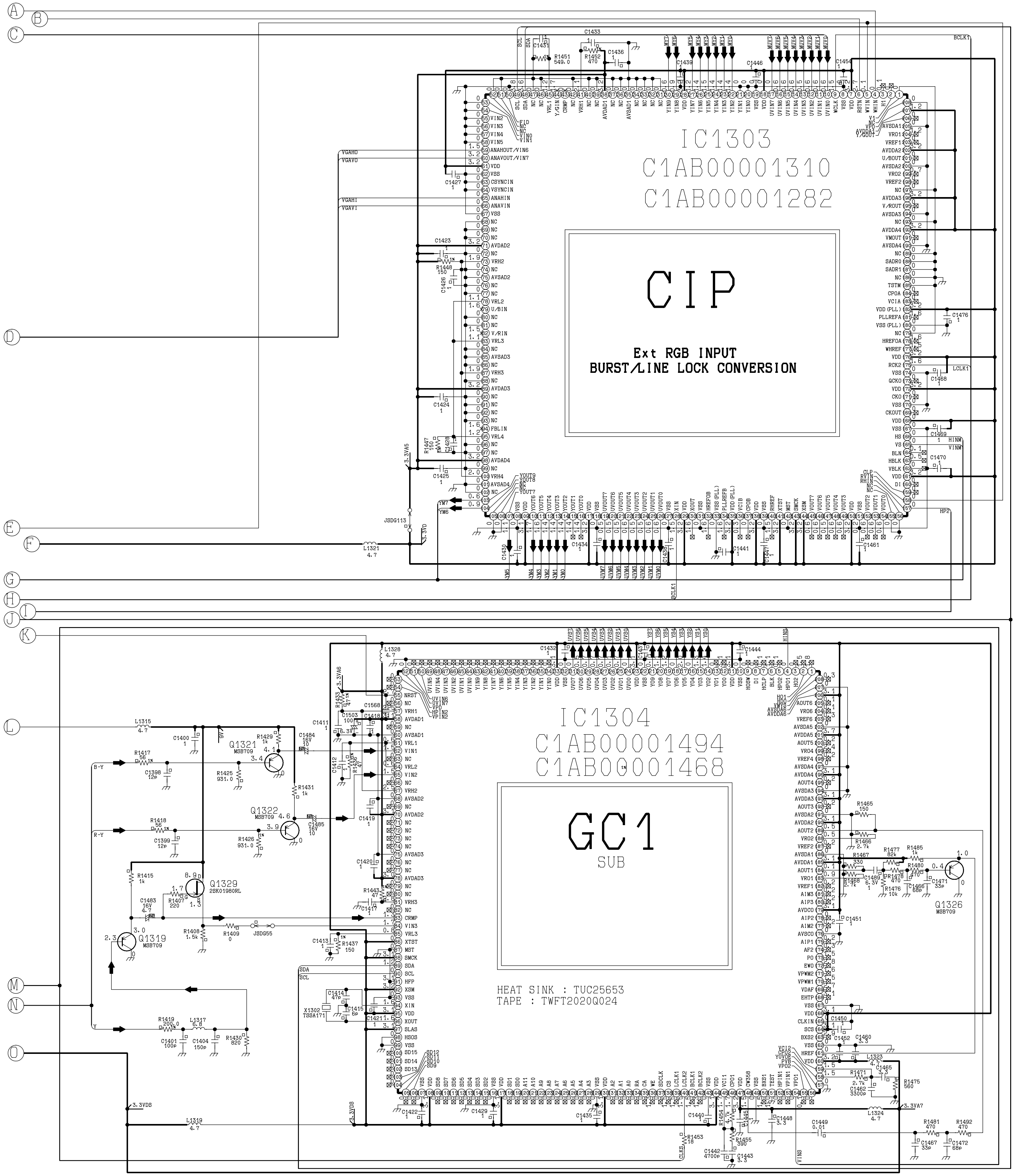
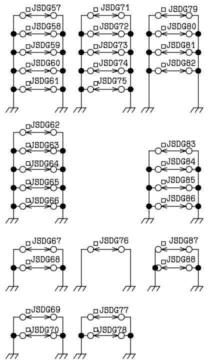
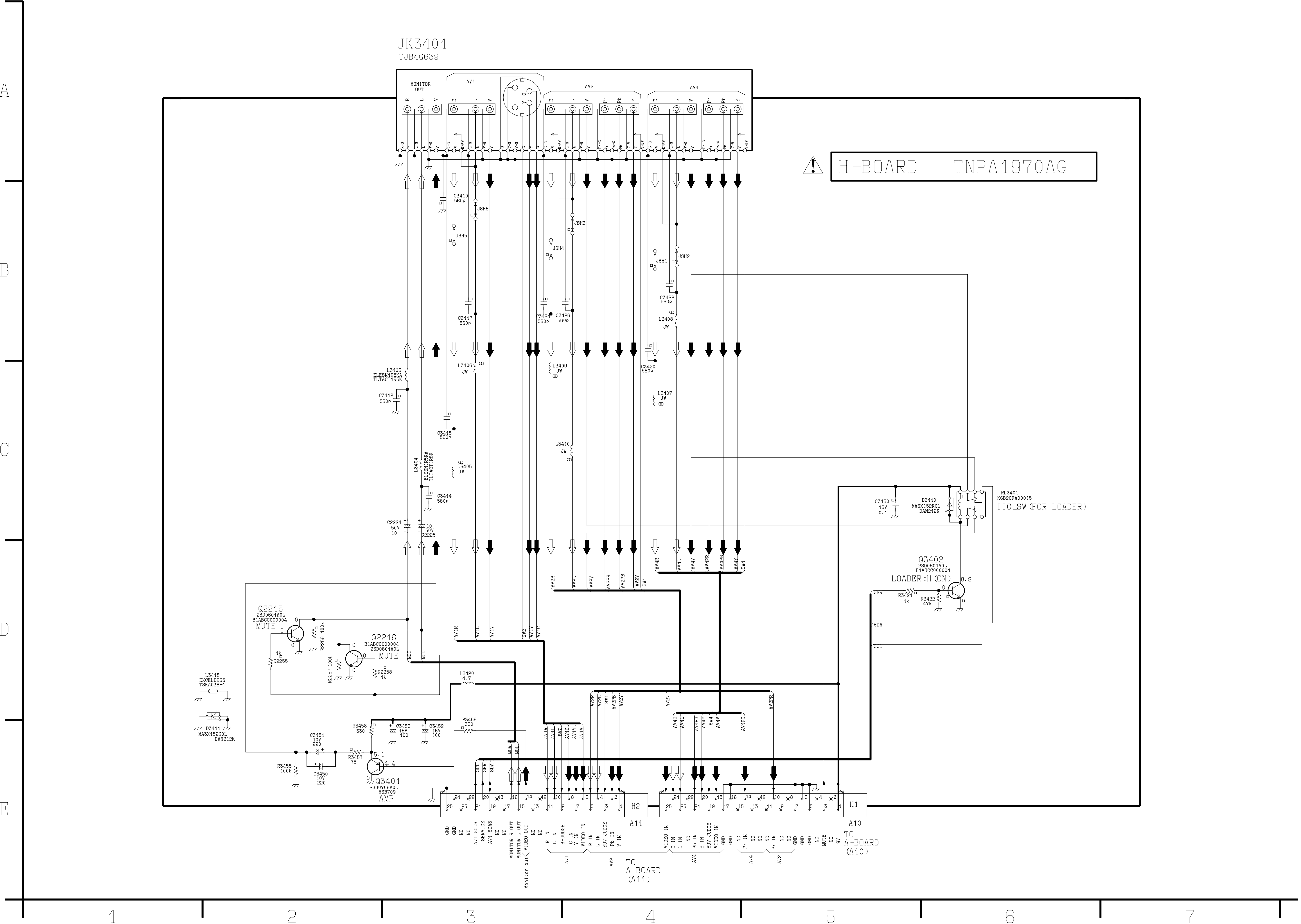
7
8
9
DG01 GND(A1)
DG02 SUB CVBS/Y
DG03 GND(A2)
DG04 SUB C/B-Y
DG05 GND(A1)
DG06 SUB R-Y
DG07 GND
DG08 GND
DG09 GND
DG10 GND
DG11 GND
DG12 VGA-B
DG13 VGA-VP
DG14 VGA-HP
DG15 GND
DG16 GBI-VS
DG17 GND
DG18 GND
DG19 HS
DG20 GND
DG21 GND
DG22 GND
DG23 V-DAF
DG24 V-DRV
DG25 FBP
DG26 GND
DG27 H-DAF
DG28 H-DRV
DG29 EW
DG30 EHT-FB
DG31 YCL SW
DG32 A5.0V
DG33 3.3V1
DG34 3.3V1
DG35 3.3V(MAIN)
DG36 3.3V(SUB)
DG37 A5.0V
DG38 A5.0V
DG39 B-OUT
DG40 G-OUT
DG41 R-OUT
DG42 GND
DG43 VM OUT
DG44 GND
DG45 GND
DG46 GND
DG47 BLK
DG48 HCLP
DG49 DI
DG50 GND
DG51 GND
DG52 SCL
DG53 SDA
DG54 GND
DG55 GND
DG56 RESET
DG57 FREERUN
DG58 GND
DG59 EXT-B
DG60 GND
DG61 EXT-G
DG62 FB
DG63 EXT-R
DG64 GND
DG65 MAIN R-Y
DG66 GND(A1)
DG67 MAIN C/B-Y
DG68 GND(A1)
DG69 MAIN CVBS/Y
DG70 GND(A1)
Y
B-Y
R-Y
VGAV1
VGAH1
3.3VDM
9V
5V
EHT
FBP
VDRV
VDAF
EW
VGAHD

⚠ DG-BOARD TXNDG10GAV (2/2)


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
IC1303
C1AB00001310
C1AB00001282
CIP
Ext RGB INPUT
BURST/LINE LOCK CONVERSION
IC1304
C1AB00001494
C1AB00001468
GC1
SUB
HEAT SINK : TUC25653
TAPE : TWFT2020Q024
Q1321
MSB709
Q1322
MSB709
Q1329
2SK0198ORL
Q1319
MSB709
Q1326
MSB709
X1302
TSSA171
L1321
L1326
L1315
L1317
L1319
L1323
L1324
JSDG113
JSDG55
B-Y
R-Y
Y
3.3VA5
3.3VD
3.3VA6
3.3VDS
3.3VA7
VGAHO
VGAVO
VGAHI
VGAVI
BCLK1
LCLK1
HINN
VINN
SDA
SCL


JSDG57
JSDG58
JSDG59
JSDG60
JSDG61
JSDG71
JSDG72
JSDG73
JSDG74
JSDG75
JSDG79
JSDG80
JSDG81
JSDG82
JSDG62
JSDG63
JSDG64
JSDG65
JSDG66
JSDG83
JSDG84
JSDG85
JSDG86
JSDG67
JSDG68
JSDG76
JSDG87
JSDG88
JSDG69
JSDG70
JSDG77
JSDG78

9 10 11 12 13 14 15 16 17


JK3401
TJB4G639
MONITOR OUT
AV1
AV2
AV4
R
L
V
Y
C
Pr
Pb
H-BOARD TNPA1970AG
C3410 560p
JSH6
JSH5
JSH3
JSH4
JSH1
JSH2
C3422 560p
L3408 JW
C3417 560p
C3424 560p
C3426 560p
L3403 ELESN1R5KA TLTACT1R5K
C3412 560p
L3406 JW
L3409 JW
C3420 560p
L3407 JW
C3415 560p
L3410 JW
L3404 ELESN1R5KA TLTACT1R5K
L3405 JW
C3414 560p
C2224 50V 10
C2225 50V 10
C3430 16V 0.1
D3410 MA3X152K0L DAN212K
RL3401 K6B2CFA00015
IIC_SW (FOR LOADER)
Q3402 2SD0601A0L B1ABCC000004
LOADER:H (ON)
SER
R3421 1k
R3422 47k
SDA
SCL
6.9
AV2R
AV2L
AV2V
AV2PR
AV2PB
AV2Y
SW1
AV4R
AV4L
AV4V
AV4PR
AV4PB
AV4Y
SW4
Q2215 2SD0601A0L B1ABCC000004 MUTE
R2256 100k
R2255 1k
Q2216 B1ABCC000004 2SD0601A0L MUTE
R2257 100k
R2258 1k
AV1R
AV1L
AV1V
SW2
AV1Y
AV1C
MOR
MOL
L3415 EXCELDR35 TSKA038-1
L3420 4.7
D3411 MA3X152K0L DAN212K
R3458 330
C3453 16V 100
C3452 16V 100
R3456 330
C3451 10V 220
R3457 75
5.1
4.4
R3455 100k
C3450 10V 220
Q3401 2SB0709A0L MSB709 AMP
SCL
SER
SDA
H2
A11
H1
A10
GND
GND
NC
NC
AV1 SCL3
SERVICE
AV1 SDA3
NC
NC
MONITOR R OUT
MONITOR L OUT
VIDEO OUT
Monitor out
NC
NC
R IN
L IN
S-JUDGE
C IN
Y IN
VIDEO IN
R IN
L IN
YUV JUDGE
Pb IN
Y IN
AV1
AV2
TO A-BOARD (A11)
VIDEO IN
R IN
L IN
NC
Pb IN
Y IN
YUV JUDGE
VIDEO IN
GND
GND
NC
Pr IN
NC
NC
NC
Pr IN
NC
NC
GND
GND
GND
NC
MUTE
NC
9V
AV4
AV2
AV4
TO A-BOARD (A10)
A
B
C
D
E
1
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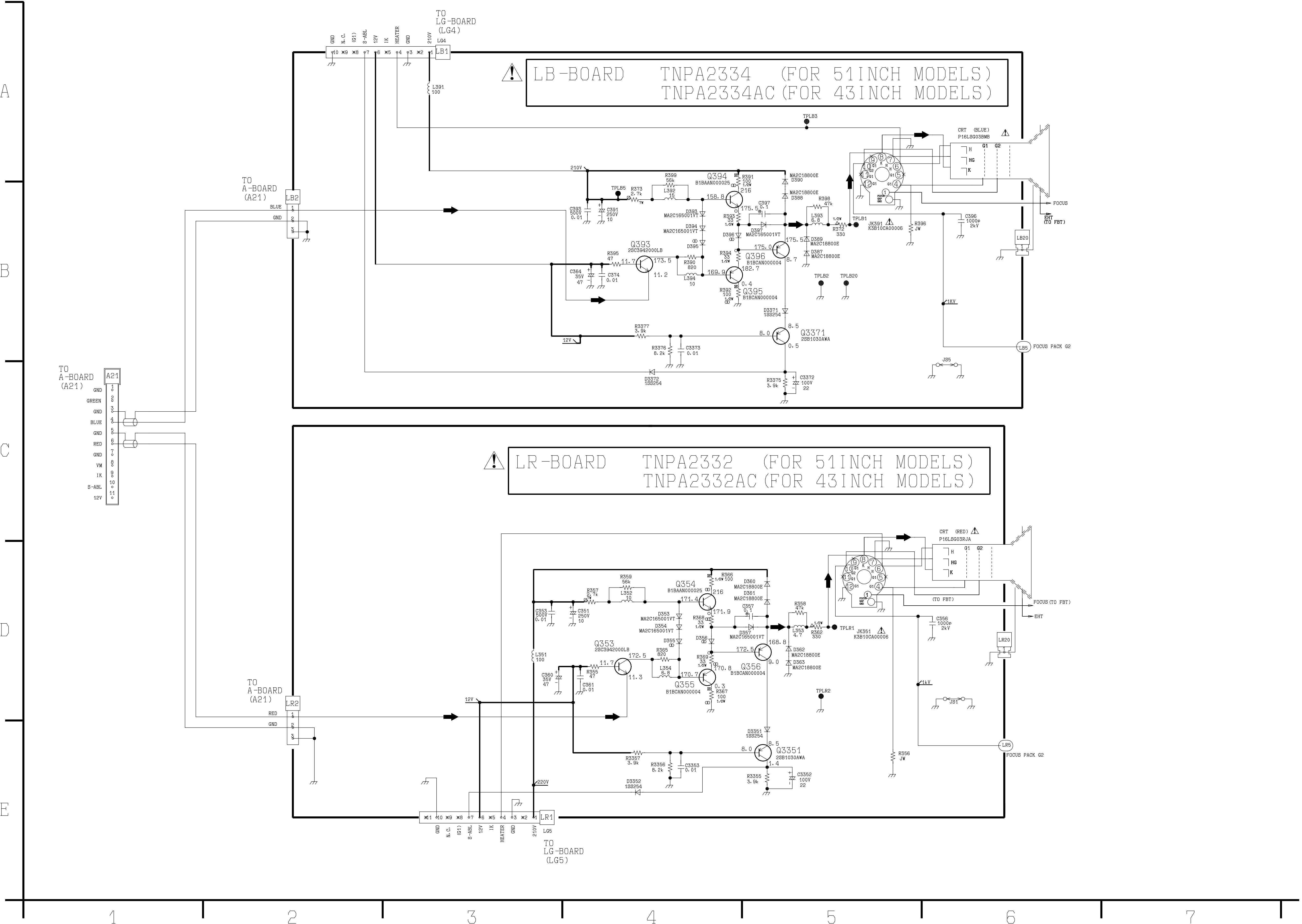
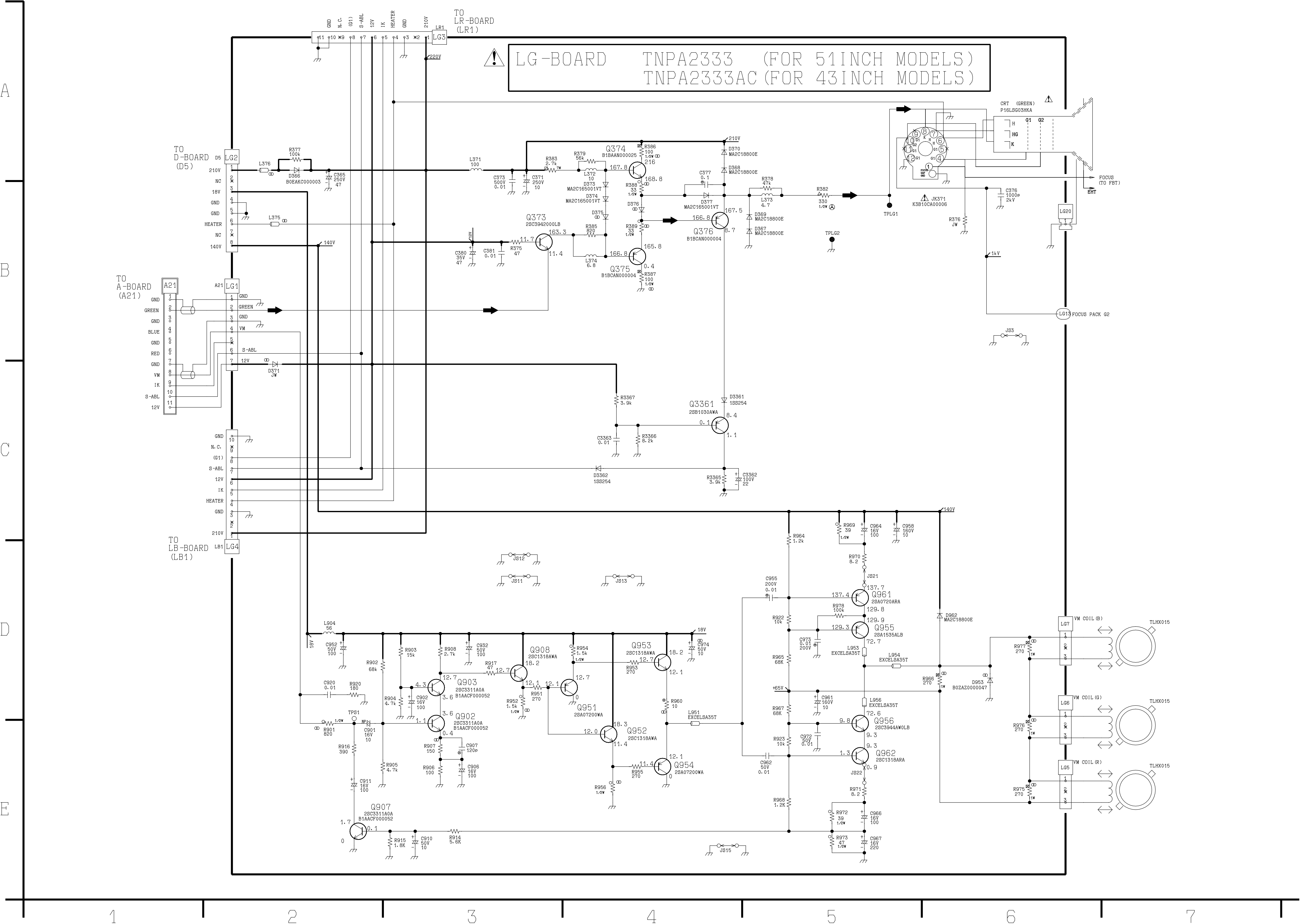
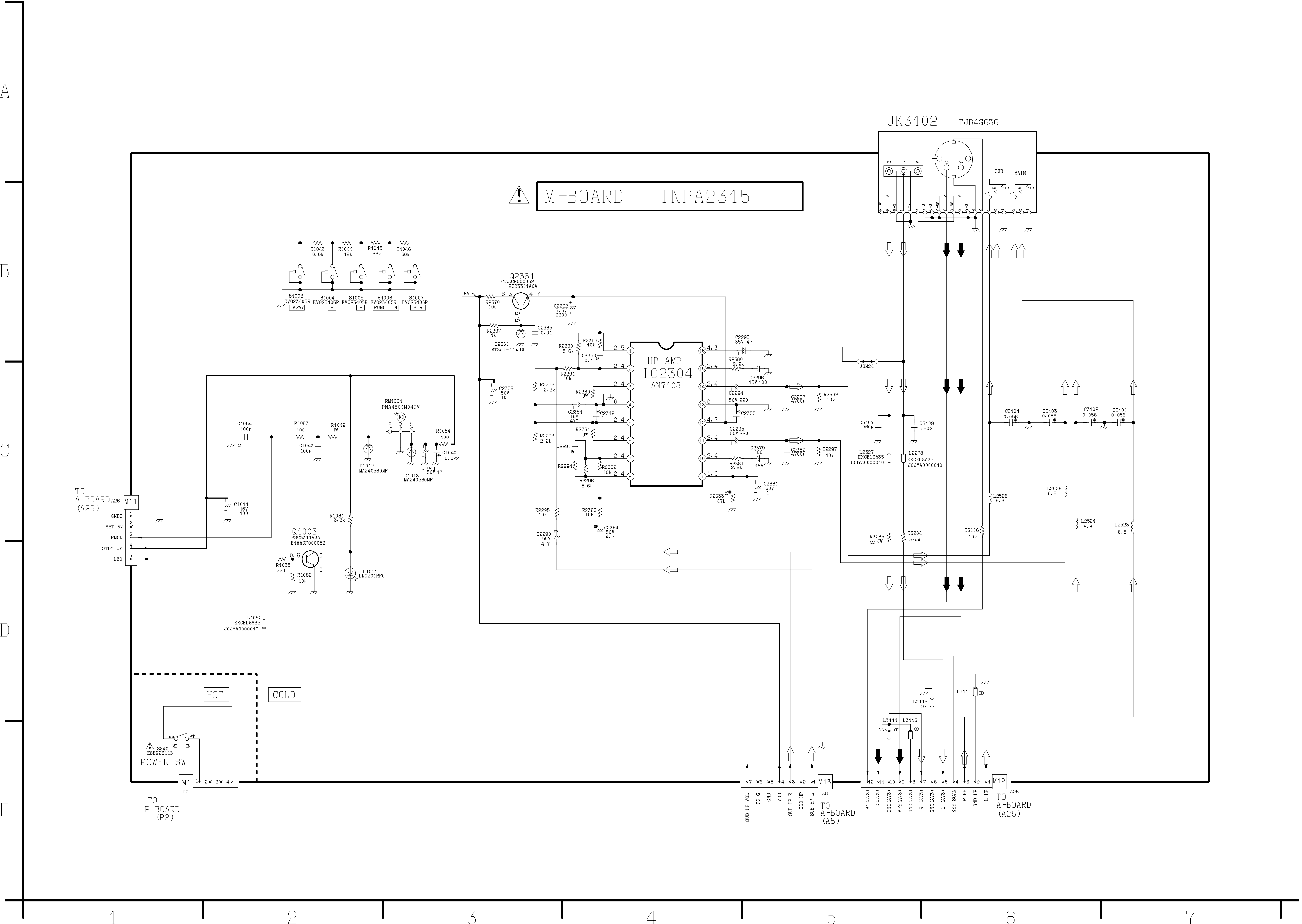
3
4
5
6
7


LB-BOARD TNPA2334 (FOR 51INCH MODELS)
TNPA2334AC (FOR 43INCH MODELS)
LR-BOARD TNPA2332 (FOR 51INCH MODELS)
TNPA2332AC (FOR 43INCH MODELS)
TO LG-BOARD (LG4)
TO A-BOARD (A21)
TO LG-BOARD (LG5)
LB1
LB2
LR1
LR2
A21
GND
N.C.
(G1)
S-ABL
12V
IK
HEATER
210V
BLUE
GREEN
RED
VM
CRT (BLUE) P16LSG03BMB
CRT (RED) P16LSG03RJA
G1
G2
H
HG
K
FOCUS
EHT (TO FBT)
FOCUS(TO FBT)
(TO FBT)
EHT
FOCUS PACK G2
LB5
LB20
LR5
LR20
JK391 K3B10CA00006
JK351 K3B10CA00006
Q394 B1BAAN000025
Q393 2SC3942000LB
Q396 B1BCAN000004
Q395 B1BCAN000004
Q3371 2SB1030AWA
Q354 B1BAAN000025
Q353 2SC3942000LB
Q356 B1BCAN000004
Q355 B1BCAN000004
Q3351 2SB1030AWA
TPLB1
TPLB2
TPLB3
TPLB5
TPLB20
TPLR1
TPLR2
JS5
JS1
1kV
220V
A
B
C
D
E
1
2
3
4
5
6
7

LG-BOARD TNPA2333 (FOR 51INCH MODELS)
TNPA2333AC (FOR 43INCH MODELS)



TO LR-BOARD (LR1)
LR1 LG3
GND N.C. (G1) S-ABL 12V IK HEATER GND 210V
220V
TO D-BOARD (D5)
D5 LG2
210V NC 18V GND GND HEATER NC 140V
L376 R377 100k D366 B0EAKC000003 C365 250V 47
L375
TO A-BOARD (A21)
A21 LG1
GND GREEN GND BLUE GND RED GND VM IK S-ABL 12V
D371 J♥
L371 100
C373 500V 0.01
C371 250V 10
R383 2.7k
R379 56k
L372 10
D373 MA2C165001VT
D374 MA2C165001VT
D375
Q374 B1BAAN000025
R386 100 1/2W
216 167.8 168.8
R388 33 1/2W
D376
R389 33 1/2W
Q373 2SC3942000LB
163.3 11.7 11.4
R375 47
C380 35V 47
C381 0.01
R385 820
L374 6.8
166.8 165.8 0.4
Q375 B1BCAN000004
R387 100 1/2W
210V
D370 MA2C18800E
D368 MA2C18800E
C377 0.1
D377 MA2C165001VT
167.5 166.8 8.7
Q376 B1BCAN000004
R378 47k
L373 4.7
D369 MA2C18800E
D367 MA2C18800E
R382 330 1/2W
TPLG1
TPLG2
CRT (GREEN) P16LSG03HKA
H HG K G1 G2
JK371 K3B10CA00006
FOCUS (TO FBT)
EHT
C376 1000p 2kV
R376 J♥
LG20
1kV
LG13 FOCUS PACK G2
JS3
R3367 3.9k
D3361 1SS254
Q3361 2SB1030AWA
8.4 0.1 1.1
C3363 0.01
R3366 8.2k
D3362 1SS254
R3365 3.9k
C3362 100V 22
140V
TO LB-BOARD (LB1)
LB1 LG4
GND N.C. (G1) S-ABL 12V IK HEATER GND 210V
JS12 JS11 JS13 JS15
L904 56
18V
C952 50V 100
C932 50V 100
C974 50V 10
R902 68k R903 15k R908 2.7k
R917 47
Q903 2SC3311A0A B1AACF000052
Q902 2SC3311A0A B1AACF000052
Q908 2SC1318AWA
R954 1.5k
Q951 2SA0720AWA
R951 270 R952 1.5k
Q953 2SC1318AWA
R953 270
Q952 2SC1318AWA
Q954 2SA0720AWA
R955 270 R956
R960 10
L951 EXCELSA35T
C920 0.01 R920 180
R904 4.7k C902 16V 100
TP81 R901 820 C901 16V 10
R916 390 C911 16V 100
R907 150 C907 120p R906 100 C906 16V 100
R905 4.7k
Q907 2SC3311A0A B1AACF000052
R915 1.8K C910 50V 10 R914 5.6K
C955 200V 0.01
R964 1.2k
R969 39 C964 16V 100 C958 160V 10
R970 8.2
JS21
Q961 2SA0720ARA
R978 100k
Q955 2SA1535ALB
R922 10k
C973 0.01 200V
L953 EXCELSA35T
L954 EXCELSA35T
R965 68K
+65V
C961 160V 10
L956 EXCELSA35T
R967 68K
Q956 2SC3944AW0LB
R923 10k C972 50V 0.01
C962 50V 0.01
Q962 2SC1318ARA
JS22
R971 8.2
R968 1.2K
R972 39 C966 16V 100
R973 47 C967 16V 220
D962 MA2C18800E
R966 270
D953 B0ZAZ0000047
LG7 VM COIL (B)
LG6 VM COIL (G)
LG5 VM COIL (R)
R977 270 R976 270 R975 270
TLHX015
A B C D E
1 2 3 4 5 6 7


A
B
C
D
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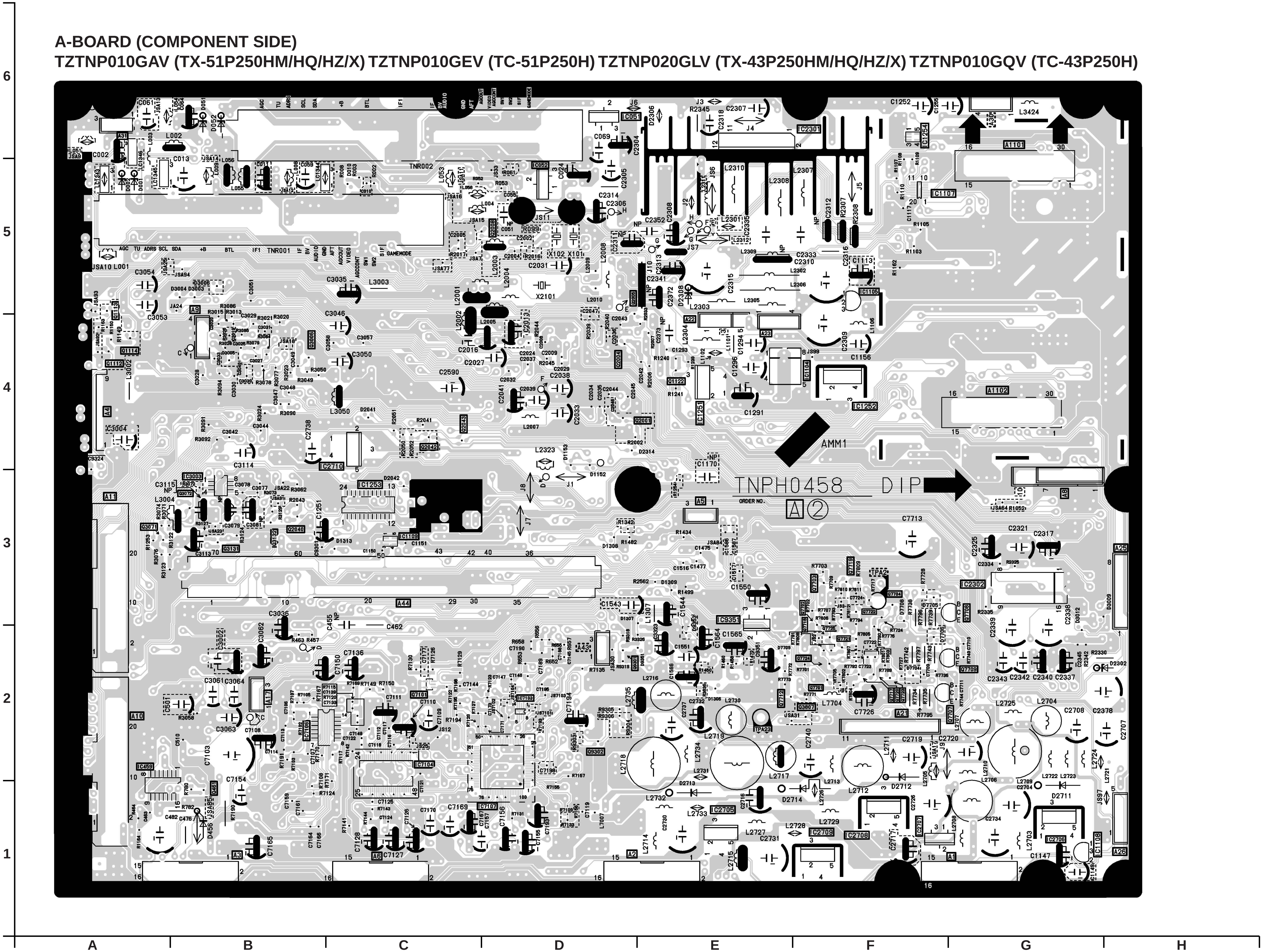
6
7
M-BOARD TNPA2315
JK3102 TJB4G636
R
L
V
C
Y
SUB
MAIN
JSM24
R1043 6.8k
R1044 12k
R1045 22k
R1046 68k
S1003 EVQ23405R TV/AV
S1004 EVQ23405R +
S1005 EVQ23405R -
S1006 EVQ23405R FUNCTION
S1007 EVQ23405R STR
Q2361 B1AACF000052 2SC3311A0A
8V
6.3
4.7
5.5
R2370 100
R2397 1k
D2361 MTZJT-775.6B
C2385 0.01
C2292 6.3V 2200
C2359 50V 10
HP AMP
IC2304
AN7108
R2290 5.6k
R2359 10k
C2356 0.1
R2291 10k
R2292 2.2k
R2360 JW
C2351 16V 470
C2349 1
R2361 JW
R2293 2.2k
C2291
R2294
R2296 5.6k
R2362 10k
R2295 10k
R2363 10k
C2290 50V 4.7
C2354 50V 4.7
NP
2.5
2.4
0
1.0
4.3
C2293 35V 47
R2380 2.2k
C2296 16V 100
C2294 50V 220
C2355 1
C2295 50V 220
C2379 100 16V
R2381 2.2k
C2381 50V 1
R2333 47k
C2297 4700p
R2392 10k
C2382 4700p
R2297 10k
C3107 560p
C3109 560p
L2527 EXCELSA35 J0JYA0000010
L2278 EXCELSA35 J0JYA0000010
C3104 0.056
C3103 0.056
C3102 0.056
C3101 0.056
L2526 6.8
L2525 6.8
L2524 6.8
L2523 6.8
R3285 JW
R3284 JW
R3116 10k
L3112
L3111
L3114
L3113
RM1001 PNA4601M04TV
VOUT
GND
VCC
C1054 100p
R1083 100
C1043 100p
R1042 JW
D1012 MAZ40560MF
R1084 100
C1040 0.022
C1041 50V 47
D1013 MAZ40560MF
C1014 16V 100
R1081 3.3k
Q1003 2SC3311A0A B1AACF000052
R1085 220
R1082 10k
D1011 LNG201RFC
L1052 EXCELSA35 J0JYA0000010
TO A-BOARD (A26)
A26
M11
GND3
SET 5V
RMCN
STBY 5V
LED
HOT
COLD
S840 ESB92S11B
POWER SW
M1
P2
TO P-BOARD (P2)
M13
A8
SUB HP VOL
PC G
GND
VDD
SUB HP R
GND HP
SUB HP L
TO A-BOARD (A8)
M12
A25
S1 (AV3)
C (AV3)
GND (AV3)
V/Y (AV3)
GND (AV3)
R (AV3)
GND (AV3)
L (AV3)
KEY SCAN
R HP
GND HP
L HP
TO A-BOARD (A25)

A-BOARD (COMPONENT SIDE)

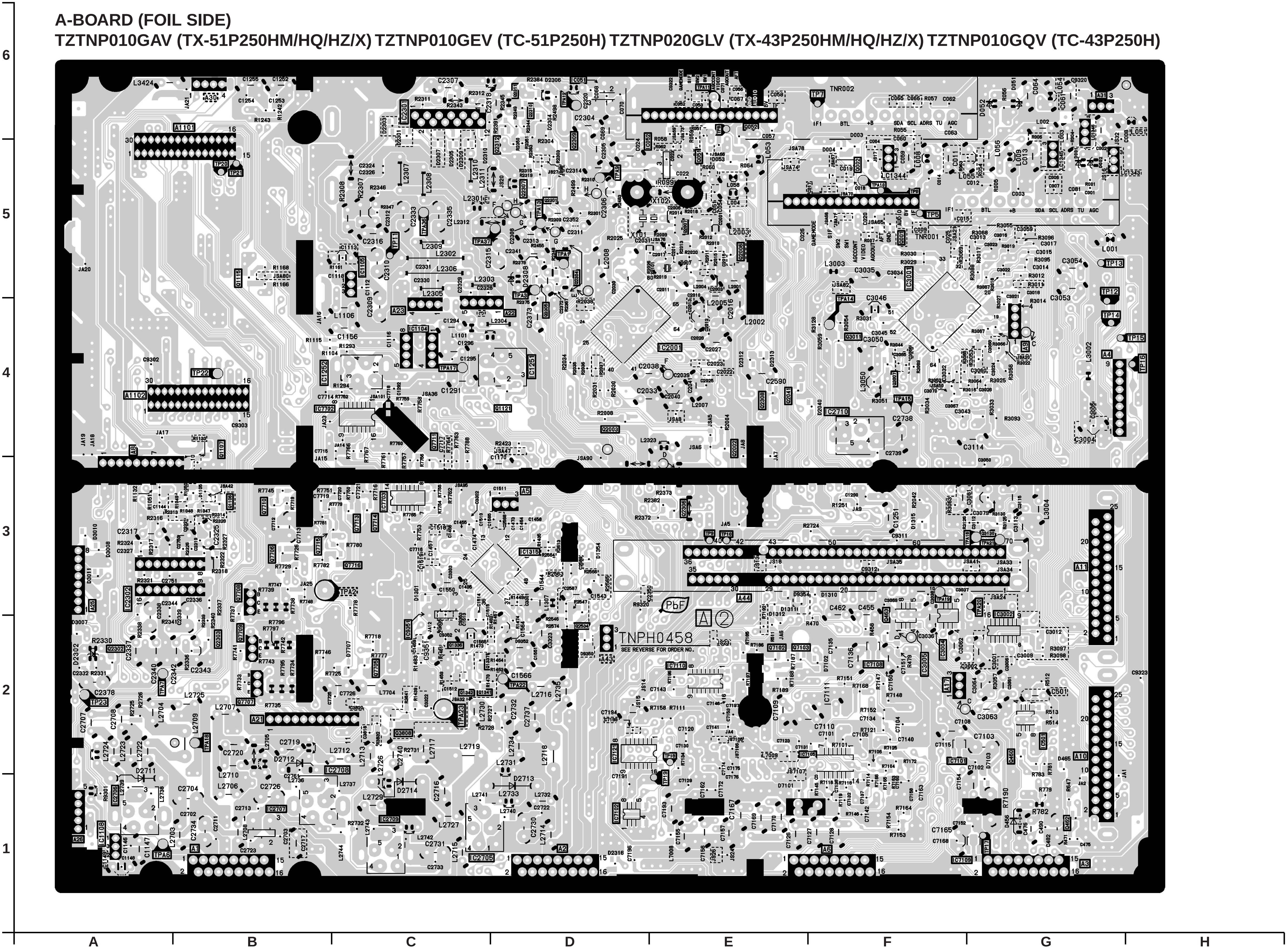
TZTNP010GAV (TX-51P250HM/HQ/HZ/X) TZTNP010GEV (TC-51P250H) TZTNP020GLV (TX-43P250HM/HQ/HZ/X) TZTNP010GQV (TC-43P250H)



TNPH0458 DIP
ORDER NO.
A②
AMM1
TNR001
TNR002
AGC
TU
ADRS
SCL
SDA
+B
BTL
IF1
BV
AUDIO
GND
AFT
ACCOUNT
VIDEO
SW1
SW2
SIF
GAMEMODE
A1101
A1102
IC2301
IC2302
IC1252
IC1253
IC2710
IC2705
IC2706
IC2708
IC2709
IC7104
IC7107
IC459
L2310
L2308
L2307
L3424
X2101
X101
X102
6
5
4
3
2
1
A
B
C
D
E
F
G
H

A-BOARD (FOIL SIDE)

TZTNP010GAV (TX-51P250HM/HQ/HZ/X) TZTNP010GEV (TC-51P250H) TZTNP020GLV (TX-43P250HM/HQ/HZ/X) TZTNP010GQV (TC-43P250H)


6
5
4
3
2
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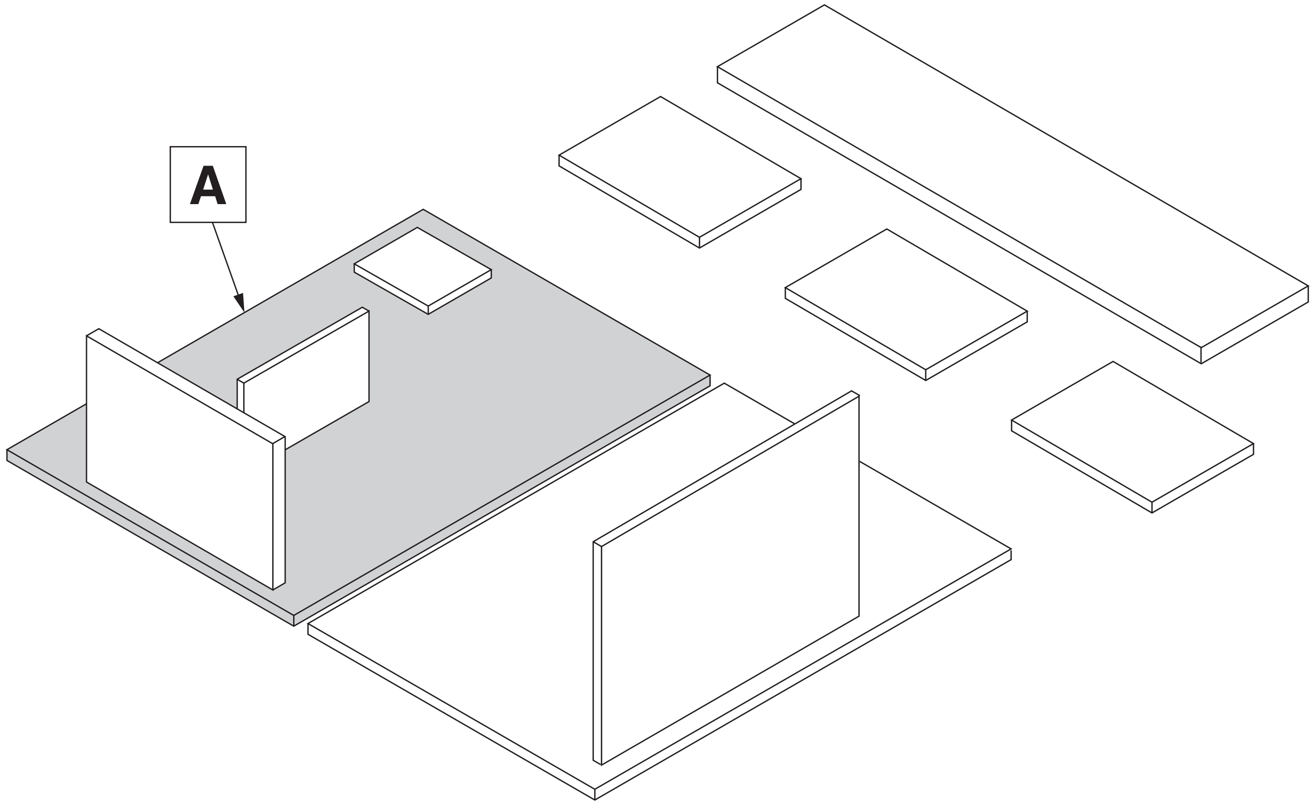
A
B
C
D
E
F
G
H
TNPH0458
SEE REVERSE FOR ORDER NO.
A②
PbF
TNR002
TNR001
A1101
A1102
A301
A31
A4
A5
A8
A21
A22
A23
A25
A26
A1
A2
A3
A6
A10
A11
A17
A43
A44
IC2001
IC2705
IC2707
IC2708
IC2709
IC2710
IC3001
IC3002
IC7101
IC7102
IC7103
IC7105
IC7108
IC7109
IC7110
IC1104
IC1251
IC1252
IC1315
IC7702
IC7703
TP5
TP7
TP12
TP13
TP14
TP15
TP16
TP20
TP21
TP22
TP23
IF1
BTL
+B
SDA
SCL
ADRS
TU
AGC



Parts Location

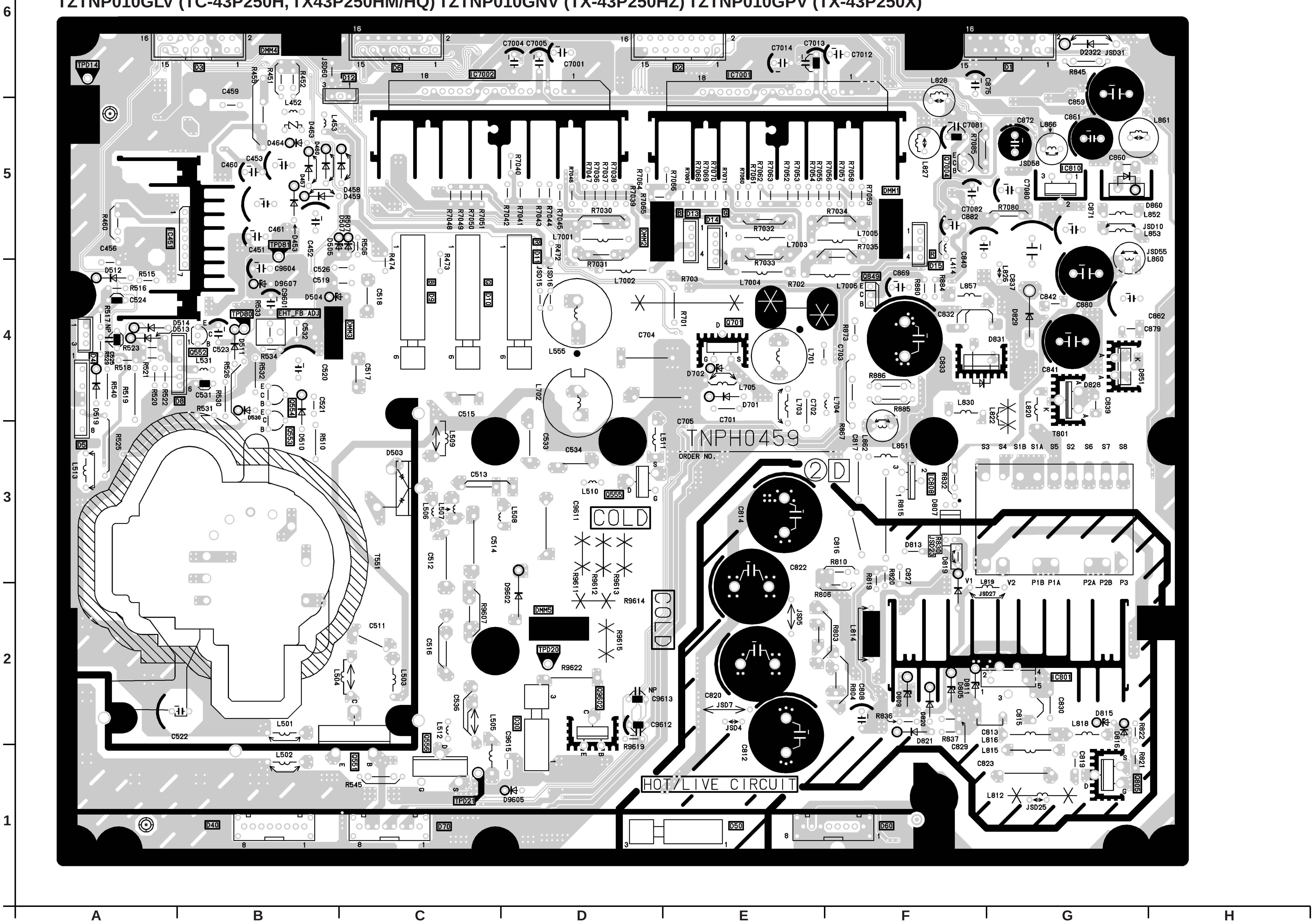
A-BOARD (FOIL SIDE)	
IC	
IC051	D-6
IC052	E-5
IC501	G-2
IC1104	C-4
IC1105	C-5
IC1108	A-1
IC1251	D-4
IC1252	B-4
IC1315	D-3
IC2001	E-4
IC2301	C-6
IC2302	A-3
IC2705	C-1
IC2706	A-1
IC2707	B-1
IC2708	C-2
IC2709	C-1
IC2710	F-4
IC3001	F-5
IC3002	G-3
IC3004	F-2
IC3005	F-2
IC7101	F-2
IC7102	D-1
IC7105	E-2
IC7108	F-2
IC7109	F-1
IC7110	E-2
IC7121	D-2
IC7702	B-4
IC7703	C-3
IC9351	C-2
TRANSISTOR	
Q001	F-5
Q002	F-5
Q051	E-5
Q052	E-6
Q460	G-2
Q462	G-1
Q463	F-3
Q1106	B-3
Q1107	B-4
Q1115	B-5
Q1121	D-4
Q1336	C-2
Q1337	C-2
Q1341	C-2
Q1342	C-2
Q2002	E-4
Q2003	D-4
Q2006	E-5
Q2007	E-5
Q2041	E-4
Q2301	D-5
Q2302	A-2
Q2303	B-2
Q2304	D-5
Q2305	D-4
Q2306	E-3
Q2307	D-5
Q2308	E-4
Q2309	D-5
Q2310	D-6
Q2311	D-6
Q2312	D-5
Q2534	D-2
Q3007	F-4
Q3011	F-4
Q3130	G-3
Q3808	C-2
Q7102	E-2
Q7103	E-2
Q7705	C-2
Q7706	B-3
Q7707	B-2
Q7708	B-3
Q7709	B-2
Q7710	B-3
Q7711	C-4
Q7713	C-3
Q7714	C-3
Q7715	B-3
Q7716	C-3
TP	
TP5	F-5
TP6	F-5
TP7	F-6
TP8	E-6
TP9	E-3
TP10	E-3
TP11	C-5
TP12	G-5
TP13	G-5
TP14	G-4
TP15	H-4
TP16	H-4
TP17	G-1
TP18	E-2
TP19	E-1
TP20	B-5
TP21	B-5
TP22	B-4
TP23	A-2
TPA	
TPA1	D-5
TPA2	C-3
TPA3	D-5
TPA6	A-1
TPA7	A-2
TPA9	D-5
TPA10	F-5
TPA11	E-6
TPA12	D-6
TPA13	D-5
TPA14	F-5
TPA15	F-4
TPA15	G-3
TPA17	C-4
TPA18	B-2
TPA19	,e-3
TPA20	G-3
TPA21	G-3
TPA22	D-2
TPA23	C-2
TPA36	C-5
TPA37	C-5

Parts Location

A-BOARD (COMPONENT SIDE)	
IC	
IC051	D-6
IC052	D-5
IC459	A-2
IC1104	F-4
IC1105	F-5
IC1107	F-5
IC1108	G-1
IC1109	C-3
IC1251	E-4
IC1252	F-4
IC1253	C-3
IC1254	F-6
IC2301	F-6
IC2302	G-3
IC2705	E-1
IC2706	G-1
IC2707	F-1
IC2708	F-1
IC2709	F-1
IC2710	C-4
IC3003	B-3
IC7103	D-2
IC7104	C-2
IC7106	B-2
IC7107	D-1
IC9351	E-3
TRANSISTOR	
Q461	B-1
Q1112	A-4
Q1113	A-5
Q1114	A-4
Q1122	E-4
Q2001	E-4
Q2004	D-4
Q2005	D-5
Q2008	D-5
Q2040	B-3
Q2042	C-4
Q2043	C-4
Q3006	B-4
Q3071	A-3
Q3072	B-3
Q3131	B-3
Q3132	B-3
Q3807	F-2
Q7101	C-2
Q7701	F-2
Q7702	F-3
Q7703	F-3
Q7704	F-3
Q7707	G-2
Q7708	G-3
Q7709	G-2
Q7712	E-2
Q7717	F-2
Q7718	F-3
Q7719	F-3
Q7720	F-2
Q7721	F-2
Q7722	F-3
Q7723	F-2
Q7724	F-2
Q7725	F-2
Q9301	D-2
Q9302	D-2
TPA	
TPA2	F-3
TPA23	E-2

D-BOARD (COMPONENT SIDE)

TZTNP030GAV TZTNP030GAV (TC-51P250H, TX-51P250HM/HQ) TZTNP010GCV (TX-51P250HZ) TZTNP010GDV (TX-51P250X)
TZTNP010GLV (TC-43P250H, TX43P250HM/HQ) TZTNP010GNV (TX-43P250HZ) TZTNP010GPV (TX-43P250X)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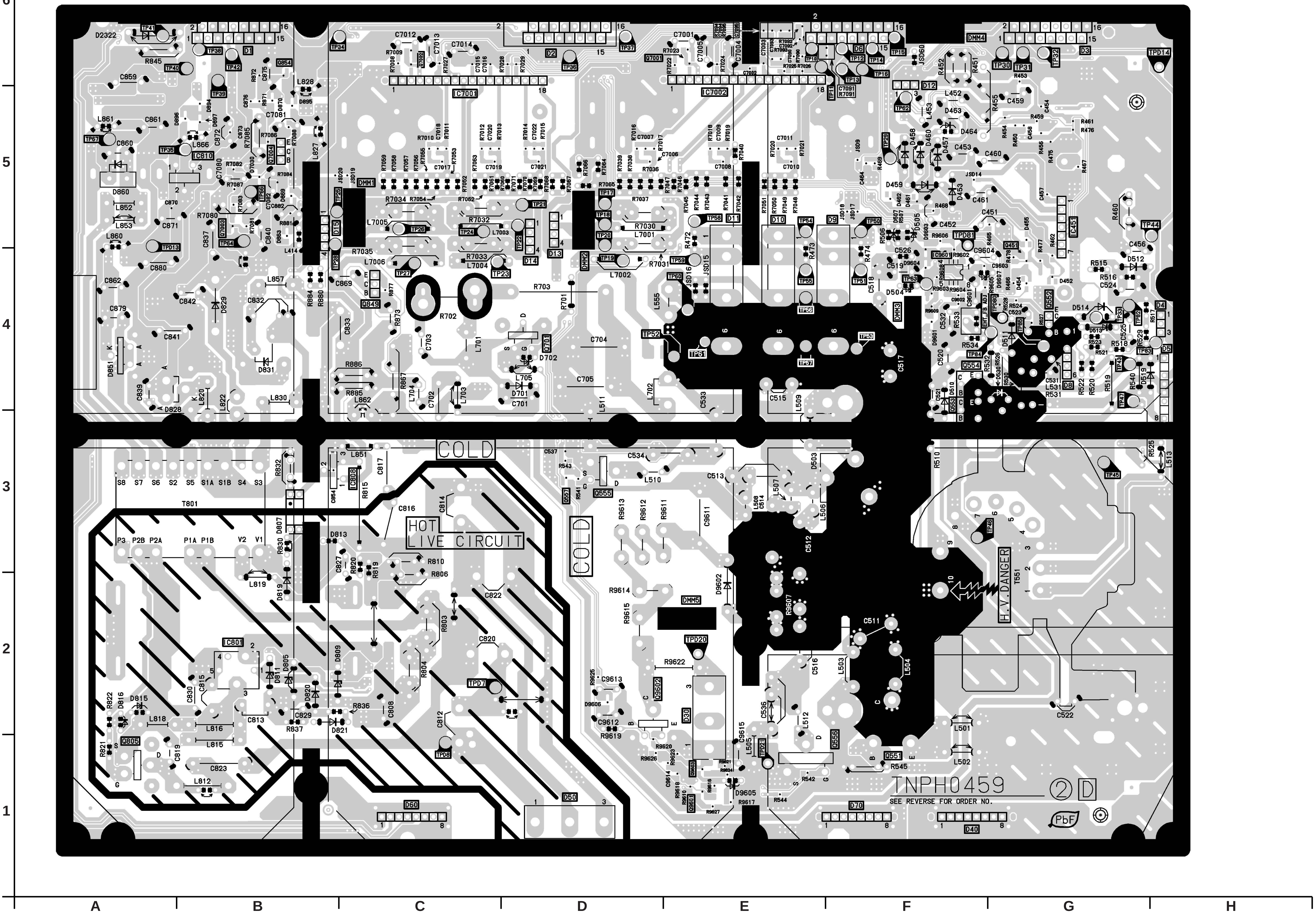
5
4
3
2
1
A
B
C
D
E
F
G
H
D3
D6
D2
D1
DMM4
DMM1
DMM2
DMM3
DMM5
IC7002
IC7001
IC451
IC810
IC801
TPD14
TPD81
TPD80
TPD20
TPD21
EHT_FB_ADJ
TNPH0459
ORDER NO.
2D
COLD
HOT/LIVE CIRCUIT
T551
T801
L555
L702
L701
C833
C880
C841
C859
C861
C814
C822
C820
C812
S3 S4 S1B S1A S5 S2 S6 S7 S8
V1 V2 P1B P1A P2A P2B P3
D40
D70
D50
D60
JSD25
JSD27
JSD7
JSD4
JSD5

D-BOARD (FOIL SIDE)

TZTNP030GAV (TC-51P250H, TX-51P250HM/HQ) TZTNP010GCV (TX-51P250HZ) TZTNP010GDV (TX-51P250X)
TZTNP010GLV (TC-43P250H, TX43P250HM/HQ) TZTNP010GNV (TX-43P250HZ) TZTNP010GPV (TX-43P250X)


6
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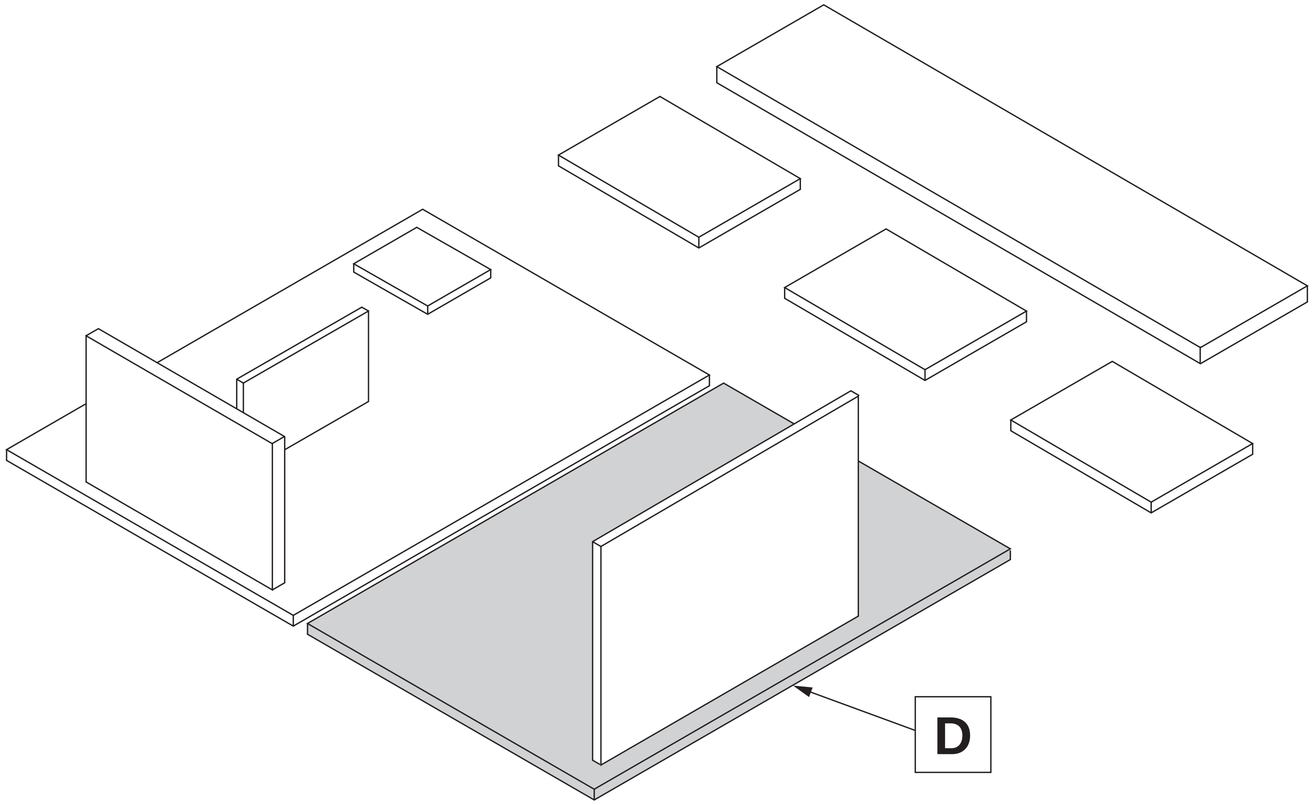
A
B
C
D
E
F
G
H
COLD
HOT
LIVE CIRCUIT
COLD
H.V.DANGER
T551
T801
IC7001
IC7002
IC801
IC451
TNPH0459
2 D
SEE REVERSE FOR ORDER NO.
PbF
D1
D2
D3
D4
D5
D8
D9
D10
D11
D12
D13
D14
D15
D30
D40
D50
D60
D70
DMM1
DMM2
DMM3
DMM4
DMM5
TP34
TP35
TP36
TP37
TP38
TP39
TP40
TP41
TP42
TPD7
TPD8
TPD13
TPD14
TPD20
TPD21
TPD81



Parts Location

D-BOARD (FOIL SIDE)

IC	
IC451	G-5
IC801	B-2
IC808	C-3
IC810	B-5
IC7001	C-5
IC7002	E-5
IC9601	F-4

TRANSISTOR	
Q451	G-5
Q551	F-1
Q552	G-4
Q553	F-4
Q554	F-4
Q555	D-3
Q556	F-1
Q557	D-3
Q701	D-4
Q805	A-1
Q849	C-4
Q854	B-6
Q7001	D-6
Q7002	C-6
Q7003	B-5
Q7004	B-5
Q9601	E-1
Q9602	D-2
Q9603	E-1

TP	
TP10	E-6
TP11	F-5
TP12	F-6
TP13	F-6
TP14	F-6
TP15	F-6
TP16	F-6
TP17	D-5
TP18	D-5
TP19	D-4
TP20	D-5
TP21	D-5
TP22	D-5
TP23	D-4
TP24	C-5
TP25	C-5
TP26	C-5
TP27	C-4
TP28	B-4
TP29	F-5
TP30	G-6
TP31	G-6
TP32	G-6
TP33	G-4
TP34	C-6
TP35	A-5
TP36	D-6
TP37	D-6
TP38	B-6
TP39	B-5
TP40	A-6
TP41	A-6
TP42	B-6
TP43	G-4
TP44	H-5
TP45	G-3
TP46	G-3
TP47	G-4
TP50	F-5
TP51	F-4
TP52	D-4
TP53	F-4
TP54	E-5
TP55	E-4
TP56	E-4
TP57	E-4
TP58	E-5
TP59	E-4
TP60	E-4
TP61	E-4
TP62	F-5
TP63	F-4
TP64	B-5
TP66	B-5
TP67	A-5
TP82	G-4
TP83	G-4
TP84	F-4
TP85	G-4

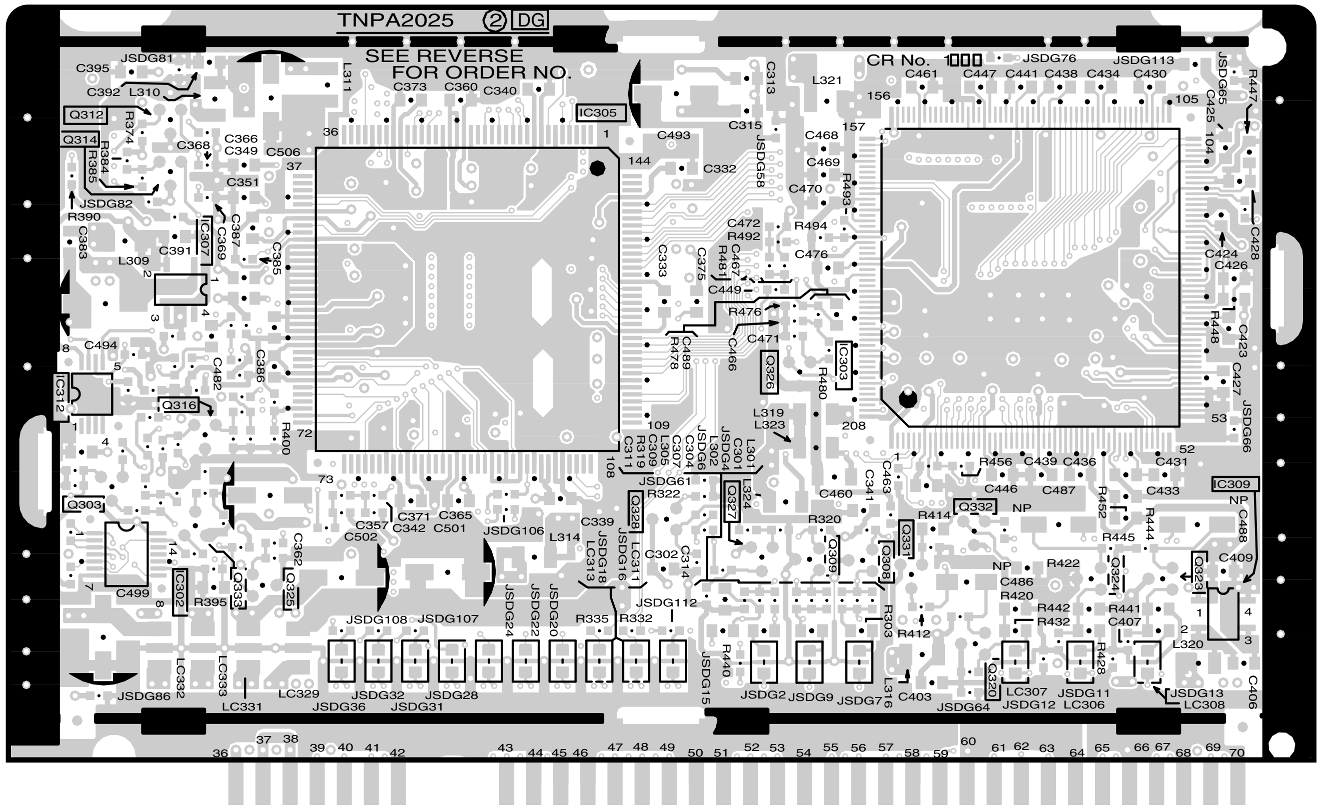
TPD	
TPD7	C-2
TPD8	C-1
TPD13	A-4
TPD14	H-6
TPD20	E-2
TPD21	E-1
TPD80	G-4
TPD81	F-5

Parts Location

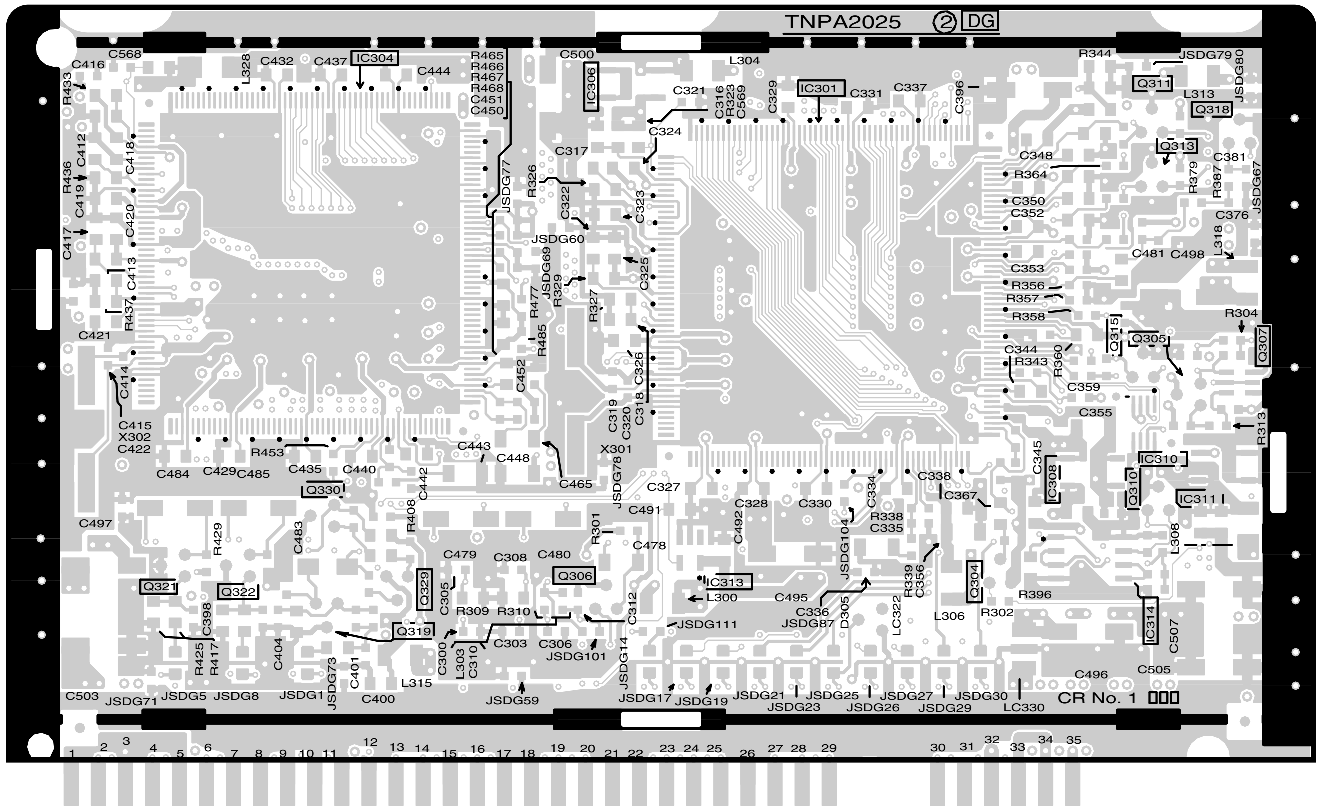
D-BOARD (COMPONENT SIDE)

IC		TRANSISTOR		TPD	
IC451	A-5	Q551	C-1	TPD14	A-6
IC801	G-2	Q552	B-4	TPD20	D-2
IC808	F-3	Q553	B-3	TPD21	C-1
IC810	G-5	Q554	B-4	TPD80	B-4
IC7001	E-6	Q555	D-3	TPD81	B-5
IC7002	C-6	Q556	C-2		
		Q701	E-4		
		Q805	G-1		
		Q849	F-4		
		Q7004	F-5		
		Q9602	D-2		

DG-BOARD (FOIL SIDE) TXNDG10GAV


TNPA2025
② DG
SEE REVERSE
FOR ORDER NO.
CR No. 1
IC305
IC307
IC312
IC303
IC309
Q312
Q314
Q316
Q303
Q326
Q327
Q328
Q309
Q308
Q331
Q332
Q324
Q323
Q325
Q333
Q320
C302

DG-BOARD (COMPONENT SIDE) TXNDG10GAV


TNPA2025
② DG
CR No. 1
IC304
IC306
IC301
IC310
IC311
IC313
IC314
Q311
Q318
Q313
Q315
Q305
Q307
Q308
Q310
Q330
Q321
Q322
Q329
Q319
Q306
Q304
6
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A
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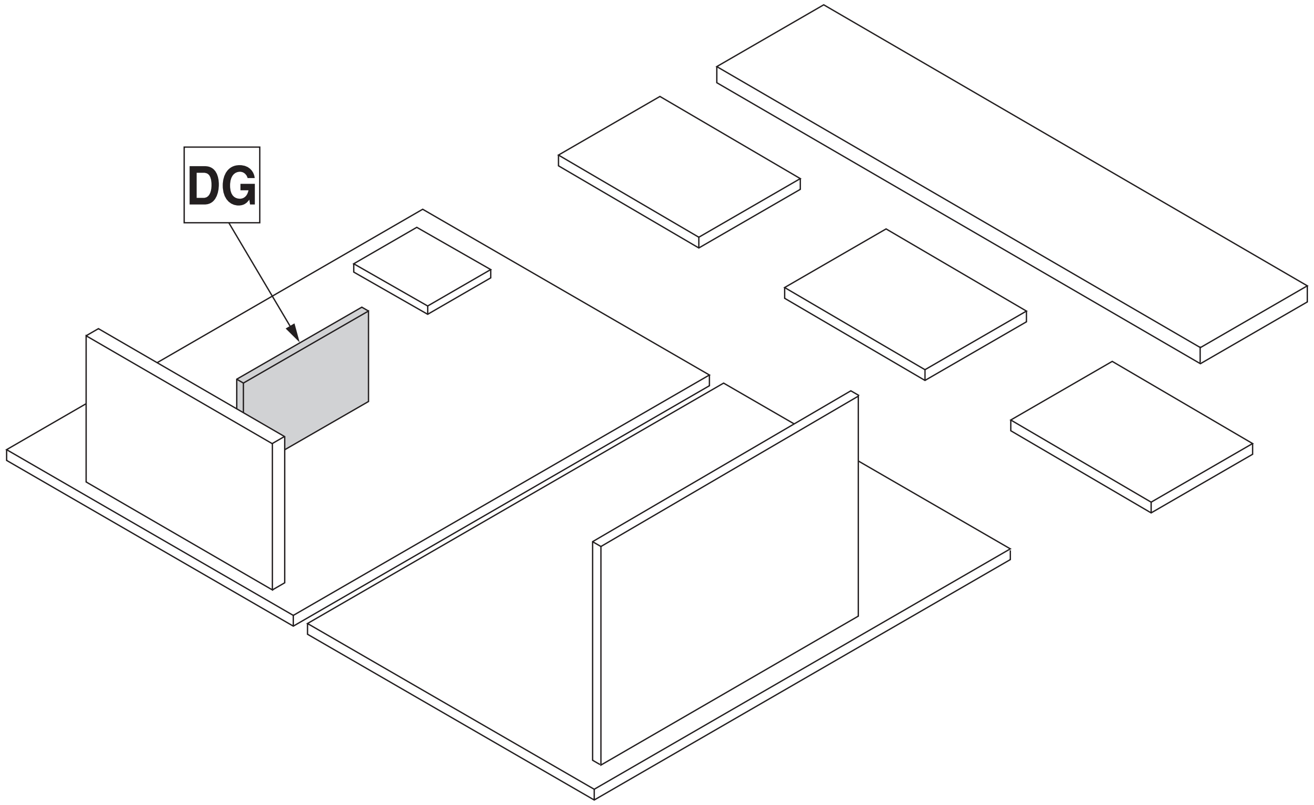
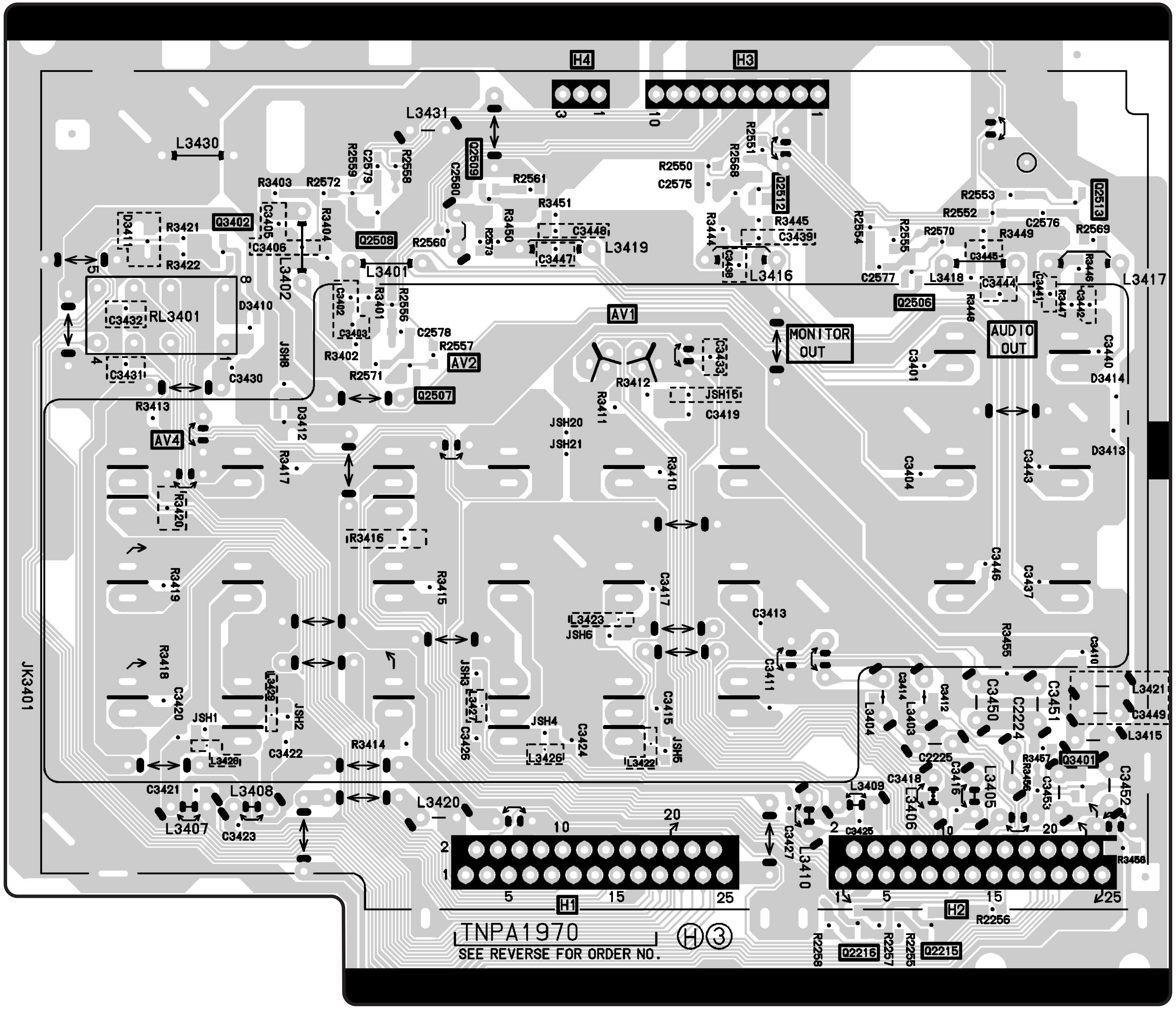
H
I

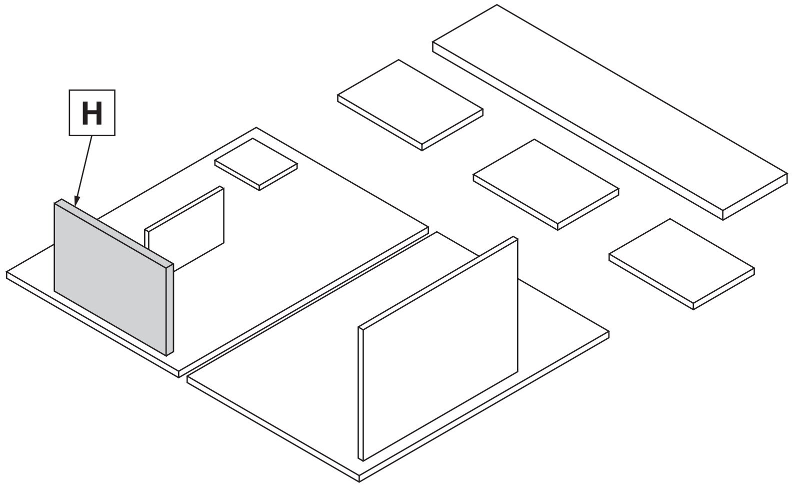


Parts Location

DG-BOARD					
IC		**TRANSISTOR**			
IC1301	C-3	Q1303	A-5	Q1319	B-1
IC1302	A-4	Q1304	D-1	Q1320	D-4
IC1303	D-5	Q1305	E-2	Q1321	A-1
IC1304	B-3	Q1306	C-1	Q1322	B-1
IC1305	C-6	Q1307	E-2	Q1323	E-4
IC1306	C-3	Q1308	D-4	Q1324	D-4
IC1307	A-6	Q1309	D-4	Q1325	B-4
IC1308	D-2	Q1310	E-2	Q1326	C-5
IC1309	E-5	Q1311	E-3	Q1327	C-5
IC1310	E-2	Q1312	A-6	Q1328	C-5
IC1311	E-2	Q1313	E-3	Q1329	B-1
IC1312	A-5	Q1314	A-6	Q1330	B-2
IC1313	C-1	Q1315	D-2	Q1331	D-5
IC1314	E-1	Q1316	A-5	Q1332	D-5
		Q1318	E-3	Q1333	B-4

H-BOARD
TNPA1970AG


H4
H3
H1
H2
AV1
AV2
AV4
MONITOR OUT
AUDIO OUT
JK3401
RL3401
L3430
L3431
L3401
L3402
L3416
L3417
L3418
L3419
L3420
L3407
L3408
L3409
L3410
L3405
L3406
L3415
L3421
Q3402
Q3401
Q2506
Q2507
Q2508
Q2509
Q2512
Q2513
Q2215
Q2216
TNPA1970
SEE REVERSE FOR ORDER NO.
H③



Parts Location

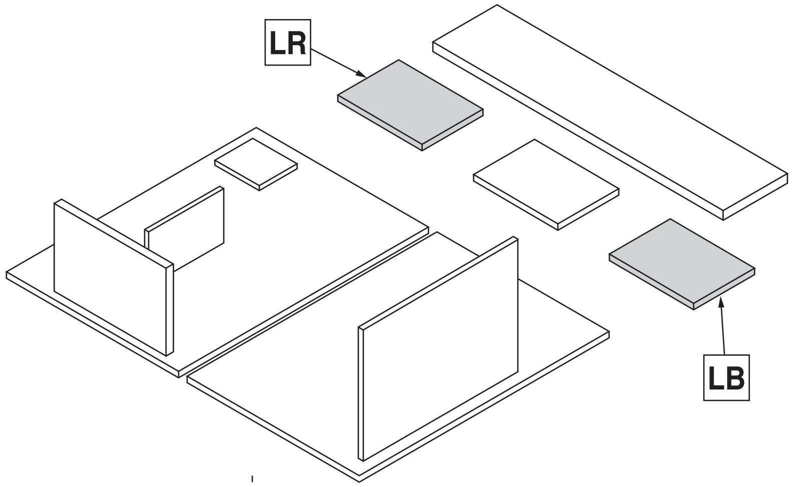
H-BOARD	
TRANSISTOR	
Q2215	F-1
Q2216	E-1
Q2506	E-4
Q2507	C-4
Q2508	C-5
Q2509	C-5
Q2512	E-5
Q2513	F-5
Q3401	F-2
Q3402	B-5

Parts Location

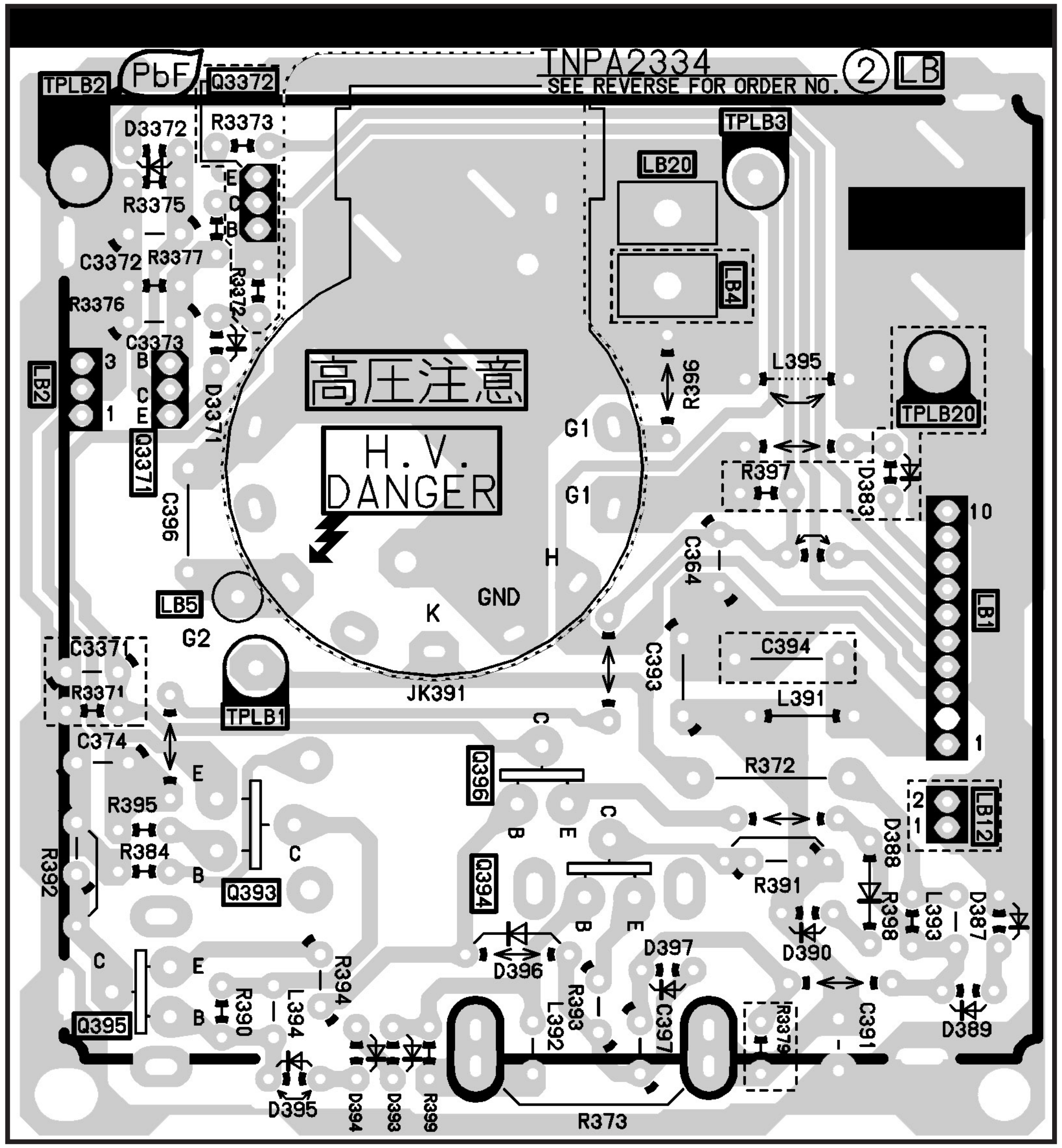
LB-BOARD			
TRANSISTOR		**TPLB**	
Q393	B-2	TPLB1	B-2
Q394	C-2	TPLB2	A-5
Q395	A-1	TPLB3	D-5
Q396	C-2	TPLB20	D-3
Q3371	A-3		
Q3372	B-5		

Parts Location

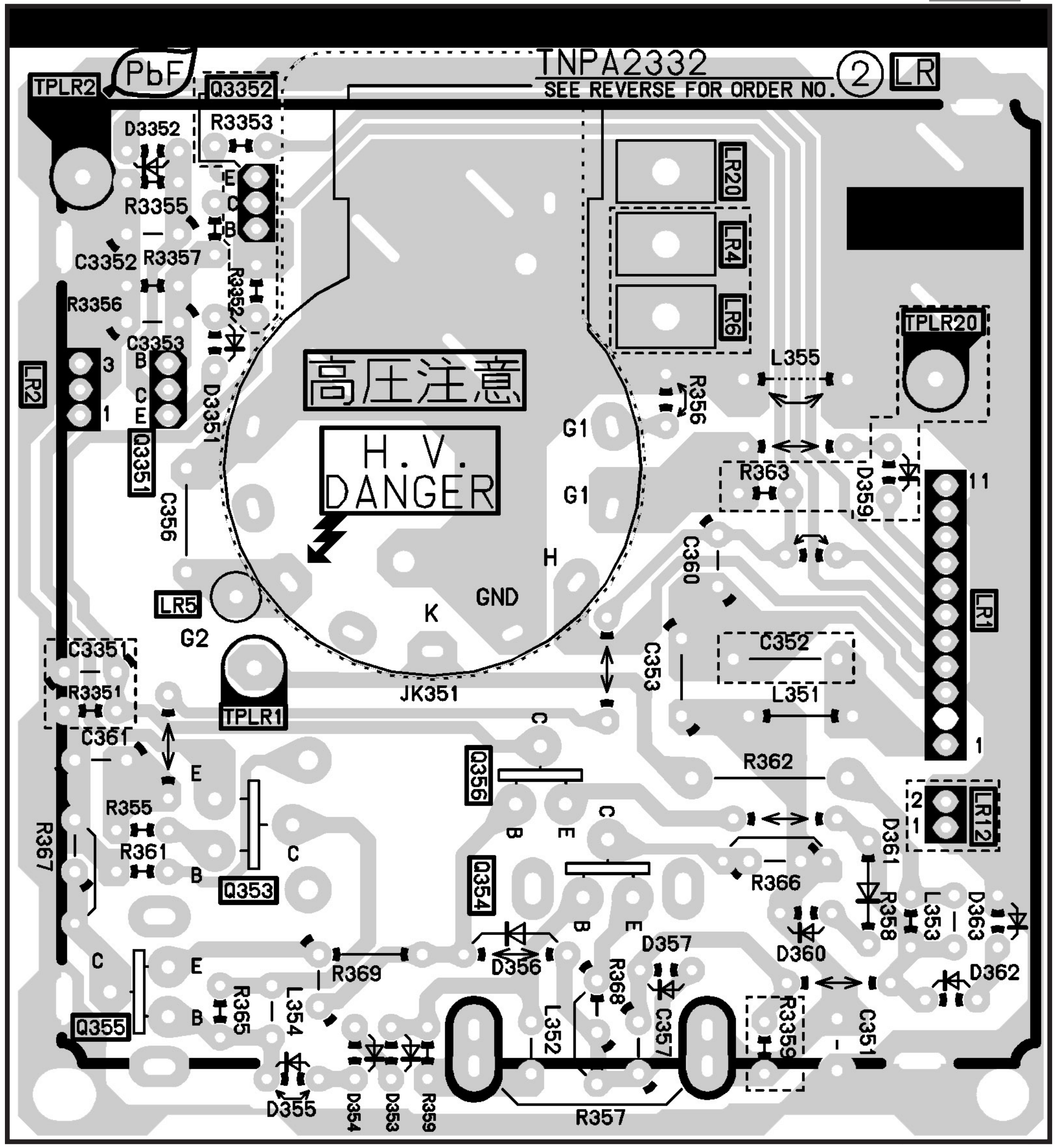
LR-BOARD			
TRANSISTOR		**TPLR**	
Q353	F-2	TPLR1	F-2
Q354	G-2	TPLR2	E-5
Q355	E-1	TPLR20	I-4
Q356	G-2		
Q3351	F-3		
Q3352	F-5		



LB-BOARD
TNPA2334 (51 inch Series)
TNPA2334AC(43 inch Series)


TNPA2334
SEE REVERSE FOR ORDER NO.
② LB
PbF
TPLB2
Q3372
D3372
R3373
TPLB3
LB20
R3375
E
C
B
C3372
R3377
R3372
LB4
R3376
C3373
LB2
3
1
B
C
E
D3371
Q3371
高圧注意
H.V.
DANGER
R396
L395
TPLB20
G1
G1
R397
D383
C396
H
C364
10
LB1
LB5
G2
K
GND
C3371
C394
R3371
C393
TPLB1
JK391
L391
C374
1
C
Q396
R372
E
R395
2
1
LB12
R384
C
B
E
C
D388
R392
B
Q393
Q394
R391
R398
L393
D387
B
E
D397
D390
C
E
D396
R394
R393
C397
R379
C391
R390
L394
L392
D389
Q395
B
D395
D394
D393
R399
R373

LR-BOARD
TNPA2332 (51 inch Series)
TNPA2332AC(43 inch Series)


TNPA2332
SEE REVERSE FOR ORDER NO.
② LR
PbF
TPLR2
Q3352
D3352
R3353
LR20
R3355
E
C
B
LR4
C3352
R3357
R3352
LR6
R3356
C3353
TPLR20
LR2
3
1
B
C
E
D3351
R356
L355
高圧注意
H.V.
DANGER
G1
R363
D359
11
Q3351
G1
C356
H
C360
LR1
LR5
K
GND
G2
C3351
C352
R3351
C353
L351
TPLR1
JK351
C351
1
C
Q356
R362
E
R355
2
1
LR12
R367
R361
C
B
D361
Q353
B
E
C
Q354
R366
R358
L353
D363
E
D357
C
B
D360
R369
D356
R368
D362
R365
L354
L352
C357
R3359
C351
Q355
B
D355
D354
D353
R359
R357

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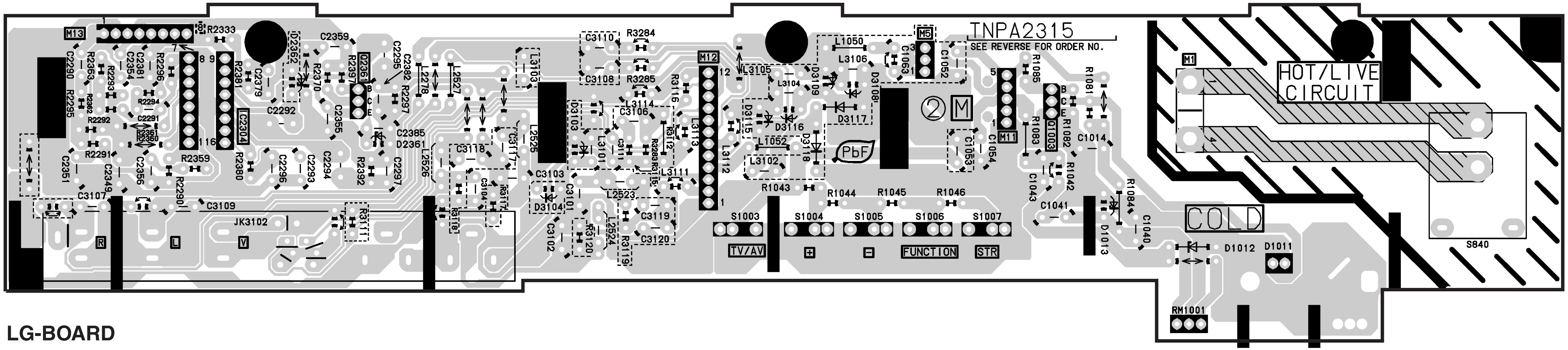
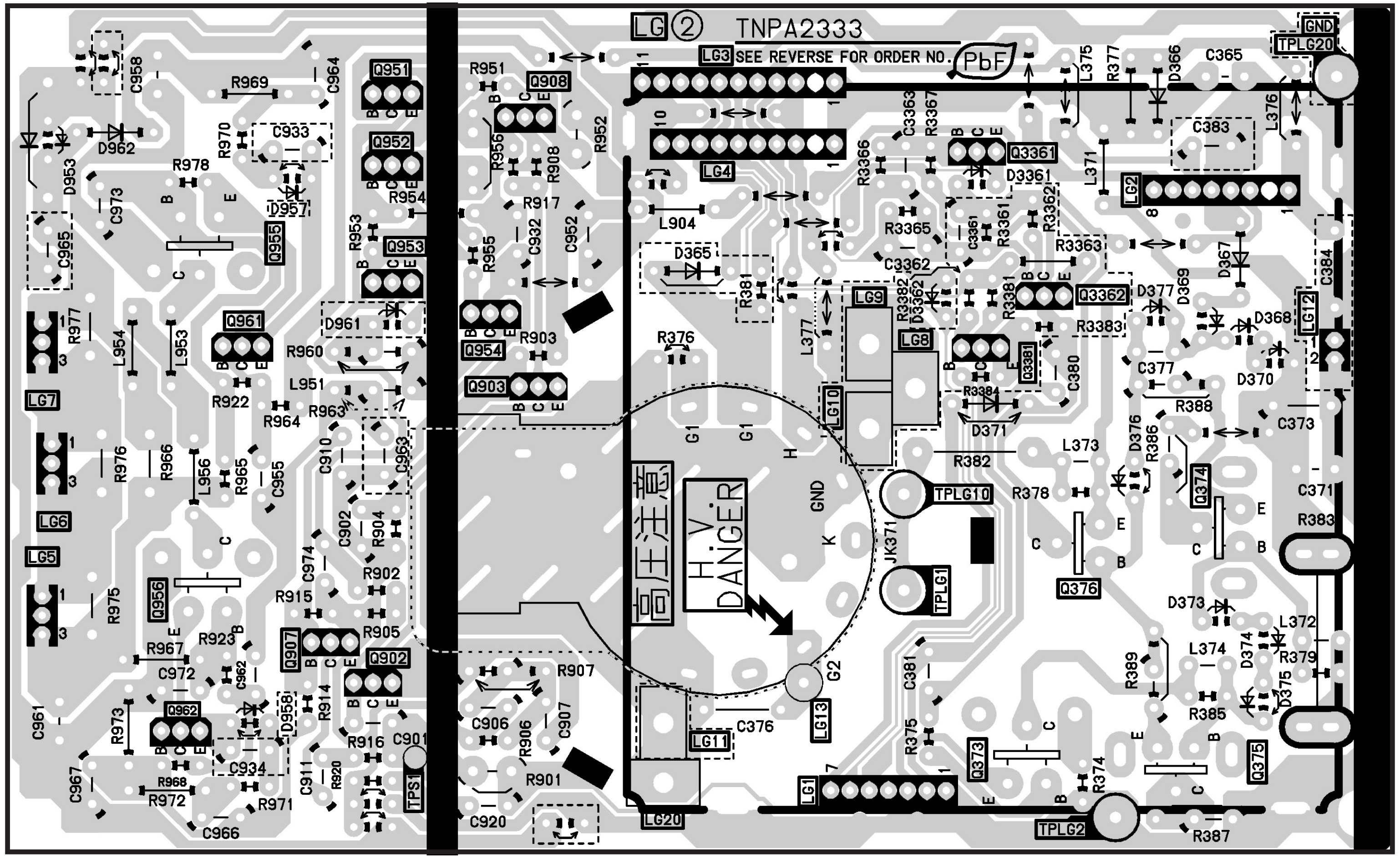
A B C D E F G H I

M-BOARD
TNPA2315



TNPA2315
SEE REVERSE FOR ORDER NO.
HOT/LIVE CIRCUIT
COLD
PbF
② M
M1
M5
M11
M12
M13
IC2304
Q1003
Q2361
S1003
S1004
S1005
S1006
S1007
TV/AV
+
−
FUNCTION
STR
JK3102
R
L
V
S840
D1012
D1011
RM1001
R1043
R1044
R1045
R1046
C1041
C1040
D1013
C3107
C3109

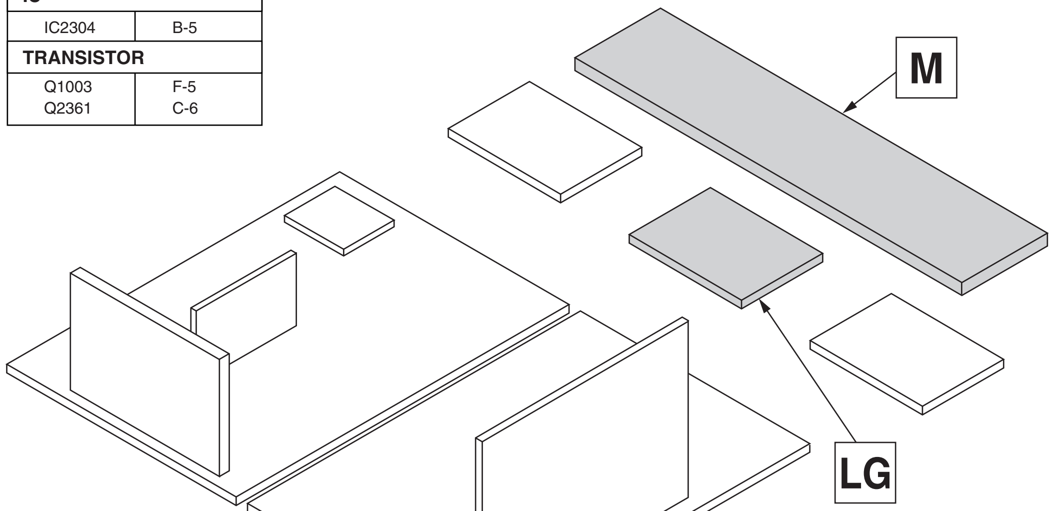
LG-BOARD
TNPA2333 (51 inch Series)
TNPA2333AC(43 inch Series)



LG②
TNPA2333
LG3
SEE REVERSE FOR ORDER NO.
PbF
GND
TPLG20
LG2
LG4
LG5
LG6
LG7
LG8
LG9
LG10
LG11
LG12
LG13
LG1
LG20
Q951
Q952
Q953
Q954
Q955
Q956
Q961
Q962
Q902
Q903
Q907
Q908
Q3361
Q3362
Q3381
Q373
Q374
Q375
Q376
TPLG10
TPLG1
TPLG2
TPS1
JK371
H.V. DANGER
高圧注意
G1
G2
H
K
GND

Parts Location

M-BOARD	
IC	
IC2304	B-5
TRANSISTOR	
Q1003	F-5
Q2361	C-6



Parts Location

LG-BOARD					
TRANSISTOR		Q952	B-3	**TPLG**	
Q373	D-1	Q953	B-3	TPLG1	D-2
Q374	E-2	Q954	C-3	TPLG2	E-1
Q375	E-1	Q955	B-3	TPLG10	D-2
Q376	E-2	Q956	A-2	TPLG20	F-4
Q902	B-2	Q961	B-3	**TPS**	
Q903	C-3	Q962	A-1	TPS1	B-1
Q907	B-2	Q3361	E-3		
Q908	C-4	Q3362	E-3		
Q951	B-4	Q3381	E-3		

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1

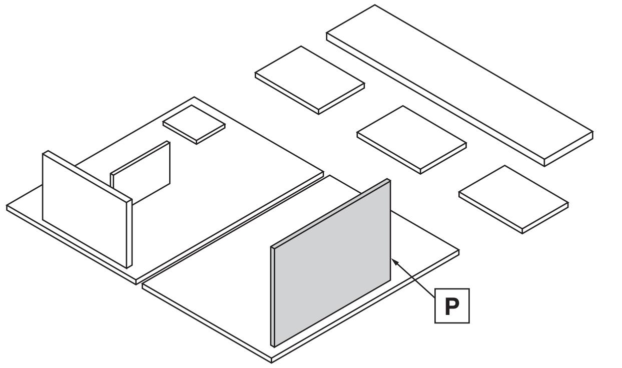
A B C D E F G H I

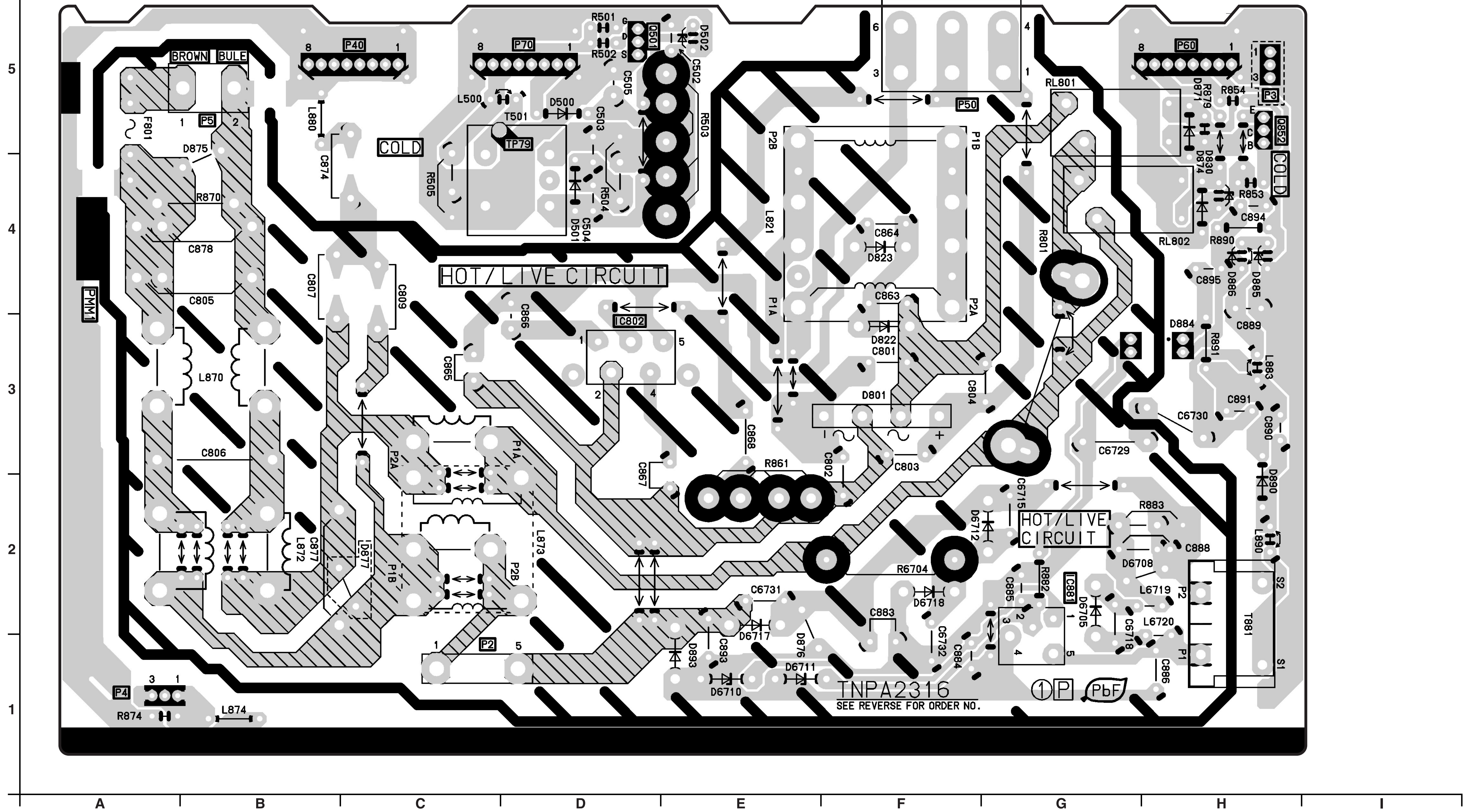
P-BOARD

TNPA2316 (TC-51P250H,TX-51P250HM/HQ)
TNPA2316AB(TX-51P250HZ)
TNPA2316AC(TX-51P250X)
TNPA2316AE(TC-43P250H,TX-43P250HM/HQ)
TNPA2316AF(TX-43P250HZ)
TNPA2316AG(TX-43P250X)

Parts Location

P-BOARD			
IC		**TP**	
IC802 IC881	D-3 G-2	TP79	D-5
TRANSISTOR			
Q501 Q852	D-5 H-5		




6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
HOT/LIVE CIRCUIT
COLD
TNPA2316
SEE REVERSE FOR ORDER NO.
PbF